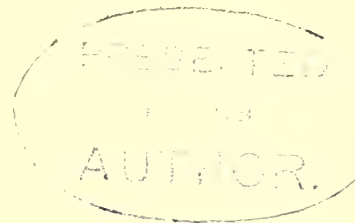

PORRO'S OPERATION.

Introduction to a Discussion in the Section of Obstetric Medicine.

BY CLEMENT GODSON, M.D.,

*Consulting Physician to the City of London Lying-in Hospital; Assistant Physician-Accoucheur
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IN placing this subject before you, I have found it necessary to prepare three tables, as follows:

1. True Porro's operations;
2. Utero-ovarian amputations performed during pregnancy, but before the foetus was viable;
3. Operations for removal of foetus from abdominal cavity by laparotomy, followed by amputation of ruptured uterus, with ovaries. (For the tables, see pages 8-20.)

My object in making this arrangement has been to classify the several operations under their respective headings, and not to mix them all together under one title, as has been done, causing much confusion, and great variation in the tables which have been prepared by different authors. So much was this felt by Dr. Robert P. Harris of Philadelphia, whose name is well and honourably known in connection with Porro's operation, from his writings thereon, that he felt it necessary to write a special article, entitled "Does the Removal of a Foetus by Abdominal Section after a Rupture of the Uterus constitute a Cæsarean Operation; and is it proper to classify this Form of Delivery with Gastro-hysterotomy, which has a different Degree of Mortality, both as regards the Mother and Foetus?" It is at once evident that these inquiries must be replied to in the negative. I would supplement this with another question, applying to Table II: Does the removal of a large abdominal tumour, together with the uterus containing a foetus which has not reached a viable period, constitute a "Cæsarean operation?" and is it proper to classify this with an operation which is performed for the delivery of a viable foetus which could not be extracted living, or even be extracted in a state of mutilation, without the greatest possible risk to the life of the mother?

I do not hesitate to say that these are operations widely differing; and that they should not, therefore, be classified together.

What, then, is a *true* Porro's operation? It may be thus described: *Cæsarean section, followed by removal of the uterus, together with its appendages, including the ovaries, leaving only the cervical portion of the uterus.*

This operation has received a variety of names. Professor Porro himself thus designates it: "Utero-ovarian amputation as a mode of completing the Cæsarean section." Other titles are, "Cæsarean ovaro-hysterectomy," "Cæsarean hysterectomy," and "Cæsarean hysterectomy."

History.—The first to arrive at the conclusion that recovery might be expected to follow the removal of the gravid uterus, with its contents, was Dr. Joseph Cavallini, who in 1768 published in Florence a paper entitled "Medico-chirurgical Experiments on the successful Excision of the Uterus in certain Animals," etc. He describes several experiments on dogs and sheep; amongst them, one on a dog in which he removed the uterus containing nine puppies. He ends by saying: "All which things having been duly weighed, I do not doubt that the uterus is not at all necessary to life; but, whether it may be plucked out with impunity from the human body we cannot be certain without a further series of experiments of this kind, which perhaps a more fortunate generation will obtain."

Dr. G. P. Michaëlis of Marburg incidentally suggested the question of amputation in the year 1809. In a foot-note to an account of a case of Cæsarean section published by him in Siebold's *Lucina* in that year, he defends the use of large doses of opium in his treatment, on the ground that the violent reaction is the great danger. He points out that when, in ignorance, the uterus has been cut away, this reaction has been much less; and adds: "It is, indeed, a question whether the Cæsarean section would not be made less dangerous if with it were combined the extirpation of the uterus, an organ which is, after all, under such circumstances (as those, namely, which demand the Cæsarean section), nothing but harmful."

Dr. James Blundell, in his lectures at Guy's Hospital in 1828, says: "In speculative moments, I have sometimes felt inclined to persuade myself that the dangers of the Cæsarean operation might be considerably diminished by the total removal of the uterus. Perhaps this method of operating may prove an eminent and valuable improvement." (*Lancet*, vol. ii, p. 167, London, 1828.) Out of four rabbits on which Dr. Blundell operated, three recovered, whilst the fourth died from the slipping of the ligatures.

Feser, in 1862, after uterine amputation, saved two bitches out of four. These experiments on animals were followed by those of Fogliata¹ of Pisa, Porro of Pavia, and Rein of St. Petersburg. But in 1869 the gravid uterus was for the first time amputated in a living woman; Dr. Horatio Storer of Boston, U.S.A., being forced into the operation as the only means of arresting the severe hæmorrhage occurring, during Cæsarean section, from an uterus with a fibro-cystic tumour. The patient had been three days in labour with a putrid foetus *in utero*. She died sixty-eight hours after the operation. (*Journal of the Gynecological Society of Boston*, vol. i, No. 4.)

The first premeditated utero-ovarian amputation, in connection with Cæsarean section, was performed by Professor Porro, then of Pavia, now of Milan, on May 21st, 1876. The lives of both mother and child were saved, thus establishing a claim for the serious consideration of this operation as a substitute for the ordinary Cæsarean section. In 1876, Professor Porro published his memoir, *Della Amputazione Utero-Ovarica come Complemento di Taglio Cesareo*; and the operation has from this time been commonly known as "Porro's operation." The proposal was received generally with disfavour; shortly afterwards, however, the operation was undertaken by Inzani of Parma, Hegar of Freiburg, and Previtali of Bergamo. As in each of these cases the patient was, at the time of operation, in an almost hopeless condition, in none of them was the result successful. Nothing daunted by these failures, Professor Späth of Vienna, and his colleagues Professors Carl Braun and Gustav Braun, recognising the value of the procedure, and knowing well the fatality of the old Cæsarean operation in their country, as elsewhere, determined to adopt it. The first opportunity occurred in June 1877, when Professor Späth undertook the operation (June 22nd) in the case of a woman, aged 40, the subject of malacosteon. She had been twenty-four days under preparation in the hospital, and made an excellent recovery. From this time, rarely has more than a month or two elapsed without the operation having been performed in some locality; so that I am enabled now to bring before you a table containing 138 true Porro's operations. A considerable number of these have never been published. I have spared no time or pains to make the table complete. I have sought information from almost every operator, and certainly from every school in which there was a likelihood of the operation having been undertaken. I have derived much assistance from Dr. Peruzzi of Lugo, who very readily undertook to obtain for me all that I needed in respect to the Italian cases; and from Dr. Harris of Philadelphia, who had, at the cost of much labour, published in the *American Journal of Medical Sciences*, 1880, a table of the first thirty-six cases, the arrangement of which I have followed in my tables, simply adding one or two further details which have appeared to me of much importance. Dr. Harris has also by his subsequent publications, and by direct information to me, given me the clue to a large number of the more recent operations. It would be impossible to mention all those who have afforded me information; the references in the tables will, however, point to the majority of these. I now proceed to give the history of my own case.

The subject of my operation, Clara J. S., was 24 years of age. In general formation she is dwarf, her hands and feet not being larger than those of a child eight or nine years of age. She appears to inherit her diminutiveness from her parents. Her mother, though well-formed, has almost equally small hands, and is only 4 feet 8½ inches in height. Her father is also spoken of as a very small man, and one sister as being very short. Clara S. was born on November 9th, 1858. When four years of age she was run over in the streets by a dray, the wheels of which passed over her body. She was immediately conveyed to Guy's Hospital, and was admitted under the care of Mr. Arthur Durham, to whom I am indebted for the following information.

"Clara S., aged 4, admitted to Dorcas Ward March 20th, 1863, run over in the street. The pelvis was found to be smashed, and the child was apparently in the most hopeless condition. However, she

¹ Contribuzione allo Studio della Amputazione dell' Utero negli Animali Domestici: Osservazioni Cliniche e Sperimenti fatti nella Scuola Zoiatrica della R. Università di Pisa.

rallied; suppuration took place; and I removed the pubic bone of one side, with other fragments, and the tuber ischii and other portions of bone of the other side. She was not expected to live for some days before the operation; but, after it, she recovered without any bad symptom whatever. The exact amount of bone removed I cannot specify, but there was what I have stated, and several fragments. The child was discharged on August 2nd; the wounds were then all healed."

The mother of the patient stated that her child remained in Guy's Hospital nearly a year, where sixteen pieces of bone were removed from the privates at three or four operations. She began to walk, when about twelve years old, on crutches, previously having been wheeled about in a perambulator. She now walked without assistance. There was no trace of any rachitic deformity. The spine presented the natural curves, except in the lumbar region, where the anterior curve naturally found in this situation was considerably increased. The sacrum appeared to be displaced backwards at its junction with the last lumbar vertebra, and thus the gluteal region was thrown into a very unnatural prominence. The coccyx was articulated at about a right angle with the sacrum. The gluteal region on the right side was much more prominent than that on the left. On the latter, no tuber ischii could be felt. The left hip-joint was ankylosed, the femur being placed at a little more than a right angle with the trunk. On account of this deformity, the patient could only walk by leaning forwards and resting on the tips of the toes of the left foot, the pelvis being at the time rotated downwards towards the same side. The muscles of the left lower extremity were much less developed than those of the right, but the bones appeared to be of equal length. The lumbar and sacral regions were covered with old scars, some adherent to the subjacent bone, and said to be the result of bed-sores which followed the accident. There was also a large scar over the upper part of the left femur, and a smaller one over the great trochanter on the opposite side, in which situation an opening was said to have discharged until she was nine years of age, when menstruation began. Ever since the accident, there had been a thick yellow discharge from the vagina. The height of the patient was 4 feet 4 inches; her weight (not during pregnancy), 5 stone 4 lbs. The pelvic measurements were as follows:

Between iliac spines	5½ inches.
Between iliac crests	6½ "
External conjugate (D.B.)	4½ "
From lower border of symphysis to tip of coccyx	3½ "
Bischiatic	about 1 "
Conjugata vera	1½ "

She was first seen by me on November 20th, 1882, at her own dwelling in Radnor Street, Saint Luke's. She had applied to be seen on account of a labial abscess, which burst while being examined by Mr. Mason, my assistant, who, recognising great pelvic deformity, and knowing that the full term of pregnancy was drawing near, requested my attendance. We ascertained that she last menstruated shortly before March 9th, on which day, and then only, coitus occurred, so that she was absolutely certain as to when she became pregnant. Calculating 275 days from this date, the labour would fall due on December 9th. Having measured the pelvis, I auscultated the abdomen. No uterine *souffle* was audible at any part, but the fetal heart was plainly heard below and to the right of the umbilicus. On palpation, the head was found to be situated in the right iliac region, but no limbs could be made out. *Per vaginam* the os uteri could not be reached, and no part of the fœtus could be felt. Without any hesitation, I decided to perform Porro's operation as soon as I could make the necessary arrangements. My intention was to remove the patient to the City of London Lying-in-Hospital, adjacent to her home, to which institution I hold the appointment of consulting-physician, and where, oddly enough, she was born. She could not, however, be received there, as repairs to the building were going on. I, therefore, engaged a room for her in the house of one of the midwives to the charity, situate in Islington, the hospital undertaking the nursing, and providing all necessaries. She was removed to this lodging on November 21st.

The chart will show the pulse, temperature, and respirations from that date. The urine was of specific gravity 1015, acid, containing mucus but no albumen. The chest-sounds were natural, except puerile breathing, with intensified expiratory sounds on both sides. The bowels were kept well relieved with castor-oil; and on the morning of the 27th, the day for which the operation had been fixed, an enema of soap and water was administered. No food, except half-an-ounce of beef-essence at 8 A.M., was given. The patient was placed on the operating-table at 2.30 P.M. There were

present as spectators Drs. Matthews Duncan, Greenhalgh, and Burchell; Messrs. Alfred Cooper, Walter Griffith, Gripper, Vogan, and Dagg. Nitrous oxide gas and ether were administered by Mr. Mills. Mr. Knowsley Thornton kindly undertook to assist me. Mr. Mason took charge of the instruments, and was prepared to receive the child. The abdomen was first sponged with carbolic acid solution (1 in 40), the carbolic spray turned on, and after passing a catheter, to be sure that the bladder was empty, and to note its exact position in the abdomen, I commenced my incision. It extended from just below the umbilicus to about two inches above the symphysis pubis. A few parietal vessels were secured by Spencer Wells's pressure-foreeps. The uterus being exposed, its anterior surface was noticed to be very livid in appearance, suggesting that the placenta was attached to the anterior wall; and therefore I made, as low down as possible—that is, at about the junction of the lower with the middle third—a small incision just large enough to admit the finger; a gush of venous blood occurred, and the membranes were seen. I immediately inserted the tips of each fore-finger, and tore the womb open transversely. There was no resistance. The membranes were not ruptured by this manipulation; therefore, knowing the exact position of the fœtus, I thrust my hand through them into the right iliac region, and, seizing the neck, without difficulty extracted the child. As it did not at once show signs of vitality, I dashed some of the carbolic water, in which the instruments were, over its face and chest, and it almost immediately cried lustily. I then tied the umbilical cord in two places, divided it, and handed the child over to Mr. Mason.

While I was thus engaged, Mr. Thornton had slipped his left hand into the pelvis so as to grasp the neck of the uterus and control hæmorrhage, and then, while holding the uterus with the left hand, applied the wire of Kœberlé's *serre-nœud* with the right, so as to include both ovaries and tubes, as well as the uterus at about the level of the internal os. The wire was then tightened, and the uterus, with the contained placenta, cut away with scissors. There was almost no bleeding; a sponge among the intestines came out unstained, as also another passed into Douglas's pouch. Solid perchloride of iron was then applied to the raw surface of the stump, two guarded pins were passed through it above the wire of the *serre-nœud*, and a strong silk ligature was placed beneath them for greater security. The edges of the lower part of the abdominal wound were drawn tightly round the pedicle, and brought together by a single China-silk suture below it, while eight or nine similar sutures were employed to bring together the peritoneum and abdominal parietes above. Carbolic gauze dressing was applied, and a flannel bandage put on over it. The patient was then placed in bed.

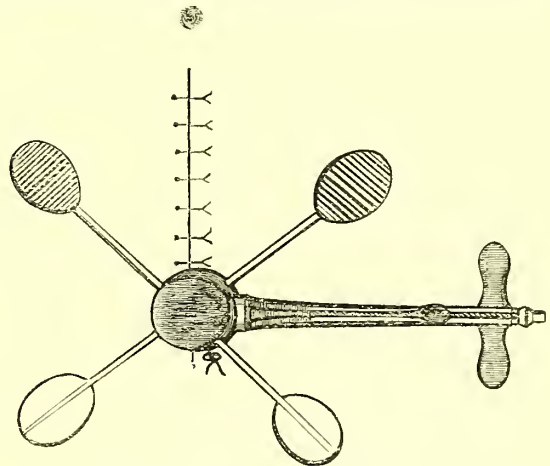
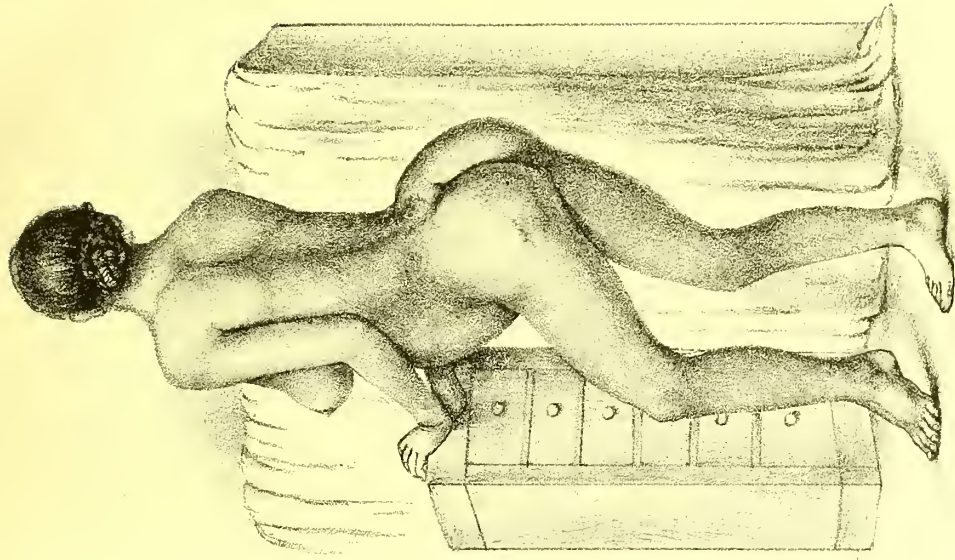
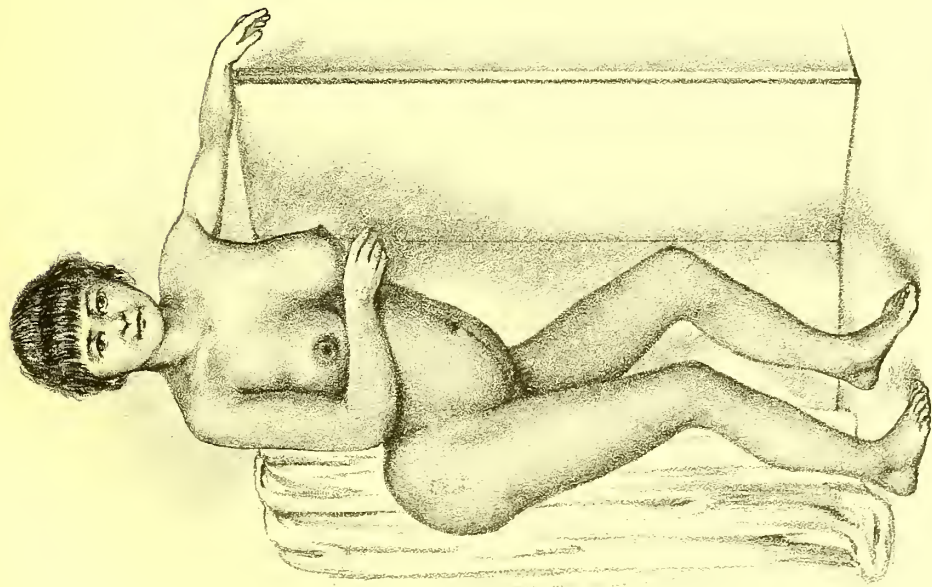


Fig. 1.—*Serre-nœud* and pins applied.

The child, a female, was unusually large, weighing eight pounds and a half, and measuring twenty inches in length. She was vigorous and well nourished. The time taken in the several steps of the operation was as follows:

Abdominal incision commenced	2.48 P.M.
Child removed and cord tied	2.56 "
<i>Serre-nœud</i> applied	2.58 "
Stitching of abdominal wound begun	3.8 "
" " ended	3.30 "
Patient placed in bed	3.45 "



diately above, the pedicle. The *serre-naud* was slightly tightened. One of the pins was removed because it pressed uncomfortably on the lower abdomen, and it was thought that a single pin would answer every purpose. Strips of adhesive plaster were placed across the abdominal wound for support. The patient took some fish for dinner.

December 6th. An enema of soap and water was given, and a copious solid evacuation followed. For dinner, she had some pheasant.

December 8th. The wound was dressed under spray. The pedicle was almost detached. The sulcus around it was carefully swabbed out with cotton-wool soaked in carbolic lotion.

December 9th. The bowels were well relieved after an enema.

December 10th. The wound was dressed under spray. The *serre-naud* was found detached, and was removed. The two remaining sutures were taken out.

December 11th. The catheter was removed, no urine having flowed through the sinus for the last three days.

December 17th. The sulcus had been cleansed daily. Urine had been passed naturally; none through the sinus, which was quite healed. The patient was lifted on to the couch.

December 28th. The abdominal wound measured four inches to below the sulcus. The depth of this was an inch and a half. All discharge had ceased. The patient could walk without discomfort, and to-day left the lodging. She was ordered to wear a belt.

On August 1st of this year (1883), I had an opportunity of seeing her. She appeared in perfect health, and said she had never felt better in her life. She has lost the vaginal discharge. She has not menstruated. The abdomen shows hardly any scar, and no depression where the pedicle was placed.

REMARKS.—The details of this remarkably successful case strongly impress one with the advantages to be gained by Porro's operation; and yet, looking at the table, and taking from it the results, the first idea will probably be not altogether favourable; for, out of the 138 operations, 77 deaths are recorded against 61 recoveries.

In comparing these results with those of the old Cæsarean operation, I would call attention to the following astounding facts. In the Vienna Hospital, for a hundred years, there had not been a recovery after a Cæsarean section; whereas recently, in three cases of Porro's operation performed in one week by Professor Carl Braun, the whole of the patients recovered. In Italy, the old Cæsarean operation was almost always fatal. Professor Chiara, of Milan, writes that, out of 62 cases operated on by Porro, Lazzati, Billi, and himself, only 3 recovered. On the other hand, nearly half (23 out of 53) of the Porro's operations have been successful, notwithstanding that the operation has been performed by as many as thirty-five different surgeons. Again, up to May 20th, 1879, when Professor Tarnier performed his first Porro's operation at the Maternité in Paris, every Cæsarean case had proved fatal there since 1787. The condition of his patient was most unfavourable, nevertheless, she recovered. In our own city, I know that my late colleague, Dr. Greenhalgh, performed Cæsarean section ten times, with only one recovery; while I have myself seen it performed by four different operators, every case proving fatal. In Prague, Professor Breisky has performed Porro's operation four times; in each case the woman has recovered, and the child has been saved.

The advantages claimed for Porro's operation over the old Cæsarean section are these.

1. The uterus being removed, and the stump of it being outside, there is no danger of bleeding within the peritoneum, or of exudation of lochia, as before, through the incised uterine wall. At the time of operation, the risk of hæmorrhage is much less; for, as soon as the cervix is constricted, it ceases, and this may be very promptly done.

2. Should bleeding occur from the pedicle, being outside it is under control—an advantage which is, however, sacrificed by the intraperitoneal method.

3. The uterus and ovaries having been removed, the dangers arising from a subsequent pregnancy are avoided.

I now pass to the several steps of the operation.

1. It is well to pass a catheter, to determine the exact position of the bladder.

2. *Incision through the Abdominal Parietes.*—This, in respect to the length of the incision, brings me to speak of what is known as Müller's modification. At his first operation, February 4th, 1878, Müller conceived the idea of bringing the uterus outside the body, and constricting its base with a provisional elastic tube before opening it, so as to avoid any hæmorrhage from

the cut surface, and to prevent the escape of liquor amnii into the peritoneal cavity. Should the foetus be putrid, as in his case, there is no doubt that this method offers advantages; but, otherwise, it appears to me to be unnecessary as far as the risk of hæmorrhage is concerned, which, by skilful manipulation, can be quickly controlled when opening the uterus *in situ*; while, on the other hand, it is certain that the larger the incision, the greater the risk to the patient, and Müller's modification cannot be effected without a long incision extending considerably above the umbilicus. This explains why, as will be seen in the tables, Müller's method was attempted in several cases, but was relinquished.

3. *Incision into the Uterus.*—It has been recommended that careful auscultation should be practised beforehand, in order to determine, by the uterine *bruit*, the situation of the placenta. Radford says: "The audibility of the placental *souffle* directs us to investigate the quarter whence the murmurs proceed; and, by attention, we may nearly always assure ourselves in what vicinity of the uterus the placenta is fixed. If this sound be not heard, we have a right to conclude that this organ is not within reach of the knife, if the infant be still alive." Now, I have no hesitation in saying that this is fallacious. On several occasions, not only I, but others, listened in my patient for the uterine *souffle*; it was inaudible, and yet the placenta was attached entirely to the anterior wall, and to no other part. In other cases, where the *souffle* has been heard in front, the placenta has been found attached to the posterior wall. The appearance of the exposed uterus is certainly indicative. I made my incision as low as possible, because of the purple or livid hue that it presented, and I only just escaped the attachment of the placenta. My method of opening the uterus was a novel one, and I see no reason why it should not be always adopted. First, as to its situation and direction; it was just above the internal os and transversely. Here the incision is more likely to gape readily, to be out of the way of the placenta, and to be within immediate access of the neck of the child. Then the tearing is effected very rapidly, and with less likelihood of bleeding than by cutting.

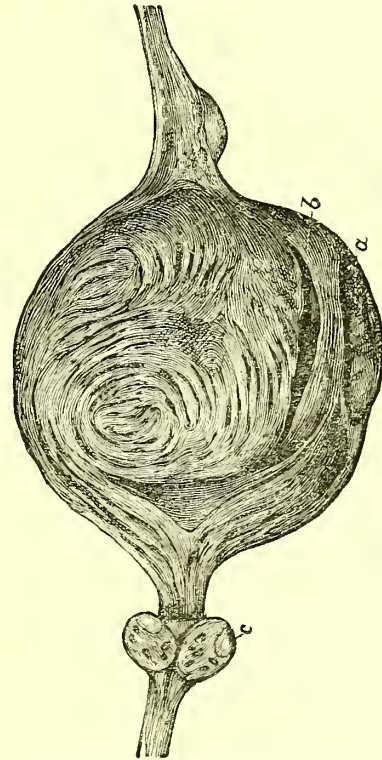


Fig. III.—This drawing shows the placenta (a) still attached to the anterior wall and partly extruded by the contraction of the uterus after delivery; the rent (b) in the anterior uterine wall, through which the foetus was extracted; and the corpus luteum (c) in the right ovary.

4. *Extraction of the Child* by the neck seems to offer advantages over that by the lower extremities, for the uterus has been known to contract round the after-coming head, causing great difficulty in

its extraction. This is, however, not a matter of great moment.

5. *Management of the Placenta*.—In many of the cases tabulated, the placenta was removed before the separation of the uterus. This appears to be not only unnecessary, but to offer great disadvantages, by occasioning loss of time, and by favouring the occurrence of hæmorrhage.

6. *Management of the Pedicle*.—This is perhaps the most important step of any in the operation. The first division must be between the extraperitoneal and the intraperitoneal treatment.

We will take the intraperitoneal first, and shortly dismiss it. Professor Isaac Taylor, of New York, adopted it in his operation of April 8th, 1880, believing that hitherto the pedicle had been always kept out. Professor Taylor had not heard of Professor Veit, of Bonn, having, on March 21st (eighteen days previously), dropped the pedicle in, as is shown from his paper in the *American Journal of the Medical Sciences*, July 1880. Both women, however, died, although, in each case, the prospects were favourable before the operation. And, in respect to this mode of treatment, I shall merely say that it will be seen from the table that, out of thirteen patients on whom it was practised, no fewer than ten died, while one of the remaining three had a protracted convalescence from pleuritic complication, and was seriously ill when last heard of. It is only fair to add that the operator, Dr. Kabiarski, jun., attributed this to catching cold, and not to septic causes. However, those who have had large experience in hysterectomy, have found similar unsatisfactory results from dropping in the pedicle. There is no doubt it is the success of this method in regard to ovarian operations, that has incited surgeons to attempt it in uterine amputations. There is a wide difference, however, in the structure and situation of the pedicle, which accounts for the difference in the results.

The methods that have been employed in securing and treating the pedicle outside the abdomen have been very numerous; and undoubtedly the success or failure, recovery or death, has depended, in great measure, upon the plan adopted. It is, therefore, most important to determine, if possible, which is the best. Porro used Cintrat's constrictor, leaving the whole apparatus on under the dressing. This plan has been pretty generally followed in Italy, though some have merely employed the instrument to tighten the wire ligature, removing it directly afterwards. Chiara left it on only in his first operation, and writes to me that it is a very bad plan. Mangiagalli informs me that he shares that opinion. It seems to me that the instrument is unnecessarily large and cumbersome, and that by the little instrument I used—Kceberlé's *serre-neud*—every desired object is effected. It is easy of application; and, as the pedicle shrinks and becomes loose, it can, from time to time, with the greatest facility, be tightened up. It is too small to be of any inconvenience to the patient.

It will be seen from the table that in Case VIII, notwithstanding that Cintrat's constrictor was left on, the pedicle became torn loose by vomiting. Now, to obviate this, it is well to pass long pins through the pedicle, guarding their ends, as is shown in the engraving illustrating the treatment in my case. (Fig. 1.) Acupressure-pins and others have been used, and it has been suggested that the material used should be ivory; but I think only metal has been employed.

Instead of a wire-loop, in some places, particularly in Vienna, the chain-*écraseur* is in favour. It is applied by means of a Péan's and Billroth's modification of Chassaignac's *écraseur*. The instrument is then removed, except the top screw, which is left with the chain to keep it secure. The objection to this instrument seems to me, that sometimes the chain cuts through the pedicle, causing bleeding from it. The table will show more than one instance of this, necessitating the subsequent employment of some kind of clamp.

It will be seen that, in tightening the wire of Cintrat's constrictor, occasionally it has given way in the loop. Other methods of securing the pedicle are by ligaturing it either with metal or silk, and stitching it to the lower angle of the abdominal wound. Hegar of Freiburg employs an elastic ligature, and is very particular to use separate stitches to keep the peritoneum of the pedicle and that of the abdominal wall together.

Besides the *serre-neud* and the long pins, a strong silk ligature may be applied, to make it doubly secure, as in my case.

7. *Drainage*.—The table shows that, in many cases, drainage-tubes have been passed through Douglas's pouch into the vagina, as well as tubes passed through the abdominal wound. In Italy particularly, this plan has been adopted; and Dr. Perruzzi lays great stress on the value of this treatment. It appears to me, however, that, at all events, with strict Listerian precautions, it is quite unnecessary,

and only adds a complication in the after-treatment. With such a temperature-chart as I show, of what value could drainage-tubes be? It is worth noting, however, that, should septic symptoms arise, the abdomen or Douglas's pouch might be opened subsequently, and drainage-tubes employed, possibly with advantage. (See Cases III and XIX.) The remaining steps in the operation—cleansing the peritoneum and closing the abdominal wound—require no comment; they are precisely the same as in ovariectomy; so with the dressing, except that great care must be taken to thoroughly protect the *serre-neud* and pins with carbolic gauze, so as to leave no track communicating with the exterior.

I hope that the time is not far distant when Porro's operation may become one of selection, displacing, to a great extent, craniotomy. I see no reason why its results, when performed under favourable circumstances, should not compare well with those of ovariectomy, and with those of hysterectomy for the removal of large uterine fibroids; and see what splendid results we have now arrived at with these operations! The induction of premature labour, where it can be performed with a prospect of the birth of a living child, must, of course, always be selected in preference to Porro's operation; but where the deformity is too great for this, and where, also, it has been left too late for this, the full term of pregnancy being almost reached, or, perhaps, labour having already commenced, the condition of the patient being still satisfactory, I hope, ere long, results will show that this operation should be at once selected, instead of sacrificing the life of the child by craniotomy, and submitting the life of the mother to serious risk in its performance. Before this can be generally recognised, the statistics must show better results. In attaining this object, it is my hope that this paper, and the discussion which will follow, will assist, by showing what appears to be the best method of carrying out the operation in its several details, and by pointing out the reasons of the large proportion of its failures.

It may be argued that, my table showing a total mortality of 55.8 per cent., the operation should only be performed as a *dernier ressort*; my answer is, that herein lies one great reason for such a high mortality. Out of the 138 cases, you will find 74 only in which the patient's condition was "favourable," in which the pedicle was not dropped in, and in which the success of the operation itself was not prejudiced by any avoidable accident. Of these 74 cases, 49 recovered, 25 died, a mortality of about 1 in 3. The question of selection should be based on these figures; not upon a summing up of total results without regard to the circumstances, so far as we can investigate them, which in each case influence the result. It is manifestly unreasonable to include in the same category as cases undertaken under fair conditions, operations performed when the patient was almost moribund from disease, or exhausted from days of labour, during which the soft parts had been bruised, or lacerations had occurred in the attempts to deliver by means of the forceps or cranioclast.

TABLE I, showing the number of Cases in each Country, with Results.

Country.	No. of Cases.	Result to Mother. Recovered.	Died.	Result to Child. Living.	Stillborn.	Mortality per cent. of Mothers.
Italy	54	23	31	46	9	57
Austria	30	18	12	29	2	40
Germany	24	8	16	17	7	66.6
France	12	5	7	8	4	58.3
Gt. Britain ..	5	1	4	4	1	80
America	4	1	3	3	1	75
Belgium	4	2	2	4	0	50
Switzerland ..	2	2	0	1	1	0
Spain	1	0	1	0	1	100
Russia	1	0	1	1	0	100
Holland	1	1	0	1	0	0
	138	61	77	114	26	55.8

¹ Italy and Austria have each a case of twins, born living.

TABLE II, showing number of Operations in each Year, with Result to Mother.

	Total.	Recovered.	Died.	Mortality per cent. of Mothers.
1876.....	1	1	0	0
1877.....	7	1	6	85.7
1878.....	15	7	8	53.3
1879.....	17	10	7	41.2
1880.....	31	11	20	64.5
1881.....	21	8	13	60
1882.....	25	11	14	56
1883.....	21	12	9	42.8
	138	61	77	55.8

TABLE III, showing Indication for Operation.

Rickets	...	29	Tibroid of uterus...	...	5
Malacosteon	...	27	Cancer of cervix	...	3
Dwarf pelvis	...	4	Atresia vaginae	...	2
Robert's pelvis	...	1	Partial rupture of uterus	...	1
Pelvis deformed from accident	...	1	In extremis	...	3
Arthritis deformans	...	1			
Osteo-sarcoma of pelvis	...	1	Total	...	138

TABLE IV, showing Causes of Death.

Septic peritonitis	...	24	Strangulation of intestine	...	1
Septicæmia	...	9	Embolism (following phlegmasia dolens)	...	1
Peritonitis	...	14	Loss of blood and carbolic acid poisoning	...	1
Shock	...	16	Retraction of pedicle	...	1
Tetanus	...	3	Anæmia	...	1
Secondary hæmorrhage	...	2	Cerebral anæmia	...	1
Pneumonia and bronchitis (pre-existing)	...	2			
Hæmorrhage from pedicle (primary)	...	1	Total	...	77

TABLE V, showing number of Cases in which Pedicle was dropped in, and of those in which it was kept out, with Result to Mother.

	No. of Cases.	Recovered.	Died.
Intraperitoneal.....	13	3	10
Extraperitoneal	125	58	67
	138	61	77

Dr. HEYWOOD SMITH (London) gave the following particulars regarding a case of Porro's operation performed by him (Case 117 in Dr. Godson's table). The patient was E. C., aged 20, single, of strumous cachexia, and very rickety. Labour began on the morning of January 6th, 1883. The "show" began on the morning of the 7th, and the midwife felt the cord presenting. On the 8th, the membranes ruptured at 7 A.M. The medical officer of St. Giles's work-house, where she was admitted at 9.30 A.M., found the funis cold and perforated. Dr. Heywood Smith arrived at 1.45 P.M., and attempted to deliver with the cephalotribe, and also with craniotomy-forceps, but, finding it impossible, he decided on performing Porro's operation. The operation was commenced at 4.15, and occupied about an hour. The uterus was drawn out of the wound before it was opened; the stump of the cervix was secured with a *serre-nœud*. The operation was performed under carbolic spray. The patient did fairly well, the temperature not rising much till the third day (102.2°), but she succumbed to a low form of peritonitis on the fourth day.

Mr. LAWSON TAIT (Birmingham) congratulated Dr. Godson on being, so far, the only successful performer of the operation in Great Britain. Of course he could not agree with Dr. Godson in his estimate of Listerism. He was in the habit of doing four or five abdominal sections every week, and he had a mortality which was not approached by any user of the Listerian method.

Dr. GRIGG (London) congratulated Dr. Godson on the success which had attended his case. He thought that the difference between Porro's operation and Dr. Godson's was so great, that the latter might almost be called a new operation. Dr. Grigg's experience of Cæsarean section had been so unfavourable, that any operation which gave a fair chance of success should be hailed with gratitude. He had performed Porro's operation once, and a modification of it twice. The latter cases were most unfavourable, and the surroundings of the first were equally bad. Still, from the experience gained in these cases, he felt sure that, with the modifications proposed by Dr. Godson, success might be fairly reckoned on. The mode adopted by Dr. Godson, of tearing the uterus across, he strongly approved, and especially the non-removal of the placenta and the keeping the pedicle externally. Wire was apt to cut through. He regarded Mr. Lawson Tait's modification of Kœberlé's *serre-nœud* as an improvement, and would certainly use it if called on again to perform the operation. The chief danger in Porro's operation was division of the ureters. In his own cases, he had been fortunate enough to avoid this accident. In Dr. Godson's mode of operating, this danger was much reduced, if not entirely removed.

Dr. LLOYD ROBERTS (Manchester) said that all must feel grateful to Dr. Godson for the able manner in which he had brought this subject before the Association. He had almost made this operation his own in this country, his case being the only successful one here to mother and child. Dr. Roberts's experience in cases suitable for this operation had been acquired from cases in which the Cæsarean section had been performed. Very often, the Cæsarean section had been done under the most unfavourable circumstances; still the statistics showed as good results as in Porro's operation. Hitherto, Porro's operation had been mostly performed in large cities with every appliance at hand, and by the best operators; still

the patients died of shock, of hæmorrhage, and of septicæmia. No doubt, with a larger experience, the mortality would be reduced. He thought Dr. Godson's suggestion of making the uterine incision in a transverse direction a good one, as by this means there was less danger of wounding the uterine artery. The further suggestion of leaving the placenta attached to the uterus was an important one, as it reduced the risk of blood entering the peritoneal cavity. Dr. Godson seemed to hope much from strict Listerism in these cases; but Dr. Roberts did not attach much importance to this.

Dr. WARD COUSINS (Southsea) referred to the critical moment of the operation—the opening of the uterus—when the danger of hæmorrhage was extreme. Dr. Godson had the skilled assistance of Mr. Knowsley Thornton, who grasped the neck of the uterus during the laceration of the body of the organ, and removal of the child. As all operations could not command the enormous advantage of skilled assistance, he suggested the application of the clamp, at least with partial closure, at this stage of the operation. Its application of course could be greatly helped by lifting up the uterus out of the pelvis. The instrument described by Mr. Lawson Tait appeared admirably adapted for that purpose. There was no fear of this wire cutting through the tissues, and causing hæmorrhage; but Dr. Cousins thought that, even with the smallest wires, hæmorrhage might be avoided by very slowly closing the *écraseur*. He had often taken half an hour during serious operations in tightening the wire.

Dr. WALTER (Manchester) drew attention to the importance of deciding between Porro's operation and Cæsarean section, *plus* removal of the uterine appendages; for he believed that simple Cæsarean section ought not to be performed without recollecting the chance of the occurrence of future pregnancy; and, therefore, in those cases where the deformity for which the operation was undertaken was so great as to prevent a child from being delivered through the natural passages by the induction of premature labour, he thought it the duty of the operator to prevent future pregnancy. Hence it was very essential to decide between the mortality of Porro's operation, and that attending removal of appendages along with Cæsarean section. Dr. Walter alluded to a case of Cæsarean section performed at the North Staffordshire Infirmary by Mr. Alcock, about two years ago. In this case, the woman recovered rapidly, but he heard that she had since died in America, having again undergone Cæsarean section. Had Porro's operation been well known when she was under Mr. Alcock's care, the woman might yet be living.

Dr. OGILVIE GRANT (Inverness) said that, while acting as a clinical assistant under Professor Breisky of Prague, he saw two cases; one case before the operation had been performed, and the other case afterwards. Professor Breisky's remarkable statistics had been mentioned by Dr. Godson; the mother and child recovering in all four cases operated on. One point on which Dr. Breisky insisted was to undertake the operation immediately before labour commenced; he carried out antiseptics to the most minute detail, and did not use drainage.

Dr. GODSON, in reply, said that the wire attached to Kœberlé's *serre-nœud* was not a steel one. It was a very soft thick wire, metallic, like Mr. Tait's, but equally unlikely to cut through the pedicle. He would take care to examine Mr. Tait's instrument; and if he saw advantages in it over Kœberlé's, he would certainly adopt it. The wire employed was a matter of choice with either instrument. He trusted that Mr. Tait's remarks might deter future operators from adopting the intraperitoneal treatment. The value of antiseptics he would not enter upon; he would merely say that the employment of them, at all events, ensured cleanliness, which otherwise would be frequently neglected. It would be impossible to compare the statistics of the old Cæsarean with the Porro's operation. There were scores of Cæsarean operations performed in villages and remote parts which, proving fatal, had never been heard of; while, on the other hand, it was almost certain that his (Dr. Godson's) table contained, with very few, if any, exceptions, all the Porro's operations that had occurred over the whole world. In reply to Dr. Ward Cousins, Dr. Godson said that, having so eminently skilled an assistant, he deputed to him what, under other circumstances, he should have done himself. The operator could equally well grasp the uterine neck to control hæmorrhage while applying the wire of the *serre-nœud* with the other hand, the assistant attending to the child. No vessels were tied; everything was included in the loop of the *serre-nœud*, and all above it was cut off. Amputation of a ruptured uterus was not a Porro's operation; there was no Cæsarean section in it. The advantages and disadvantages of this operation required special consideration.

TABLE I.—*True Porro's Operations.*

No.	Date,	Operator and Locality.	Hospital or Private house.	Age.	Number of previous labours.	Cause of difficulty.	Available pelvic space.	Height of Woman.	Time in labour before operation.	Condition of woman at time of operation.	Result to woman.	Result to child	Cause of death in woman.
1	1876 May 21	Prof. E. Porro, Pavia, Italy	Hos.	25	Primipara	Rickets (pseudo-osteo-malacia)	C.V. 1 $\frac{3}{8}$ in	4ft. 10 $\frac{1}{2}$ in	6 hrs. 51m.	Favourable	Recovery	Living	—
2	1877 Jan. 3	Prof. G. Inzani, Parma, Italy	P. ho.	32	3	Osteo-sarcoma of pelvis	—	Medium	About 20 hrs	Exhausted by malignant disease	Died on 3rd day	"	Septic peritonitis
3	Mar. 28	Prof. A. Hegar, Freiburg, Germany	Hos.	32	1	Rickets, lumbo-dorsal kyphosis	Contraction at outlet	4 feet	4 days	Albuminuria & eclampsia	Died on 5th day	"	"
4	April 25	Dr. G. Previtali, Bergamo, Italy	"	—	Primipara	Rickets	—	—	5 days	Exhausted by long labour	Died in 30 hours	Stillborn	Shock
5	June 22	Prof. Josef Spath, Vienna, Austria	"	40	6 (1 craniotomy)	Malacosteon	C.V. 2 $\frac{3}{8}$ in	4ft. 5 in.	About 3 hrs	Favourable	Recovery	Living	—
6	Sept. 3	" "	"	29	3	"	C.V. 3 $\frac{3}{8}$ in, R. sacro-cot. 1 $\frac{1}{8}$ in	4ft. 7 in.	36 hours	Unfavourable	Died on 8th day	Stillborn (putrid)	Septicæmia
7	Sept. 5	Prof. Carl von Braun-Fernwald, Vienna, Austria	"	40	7 (6 natural last one turning)	"	C.V. 3 $\frac{3}{8}$ in, R. sacro-cot. 1 $\frac{1}{8}$ in	4ft. 8 in.	15 hours	Exhausted by malacosteon	Died on 3rd day	Living	Septic peritonitis
8	Dec. 16	Prof. D. Chiara, Milan, Italy	"	37	Primipara	Rickets.	C.V. 1 $\frac{3}{8}$ in	3ft. 7 $\frac{1}{2}$ in.	Not commenced	Favourable	Died on 7th day	"	Shock from drawing in of pedicle and protrusion of bowel
9	1878 Feb. 4	Prof. P. Müller, Berne, Switzerland	"	37	5	Malacosteon	C.V. 4 $\frac{1}{8}$ in, pelvis rostrate, contraction at outlet	4ft. 11 in.	3 $\frac{1}{2}$ days	Unfavourable	Recovery	Stillborn	—
10	April 11	Dr. F. Franzolini, Udine, Italy	"	35	Multipara	(See condition)	Ordinary	Medium	Not commenced	Almost moribund from bronchial catarrh	Died in 36 hours	Twins alive, but died within an hour	Pneumonia, with anasarca
11	April 14	Prof. A. Wasseige, Liège, Belgium	P. ho.	39	Primipara	Rickets	C.V. 2 in	4ft. 1 $\frac{1}{2}$ in.	18 hours	Favourable	Recovery	Living	—
12	May 10	Prof. Carl von Braun-Fernwald, Vienna, Austria	Hos.	26	"	"	"	4ft. 1 $\frac{1}{2}$ in.	11 hours	"	"	"	—
13	May 22	Prof. D. Chiara, Milan, Italy	"	23	1 (induced)	"	C.V. 2 $\frac{3}{8}$ in	4ft. 3 $\frac{3}{8}$ in.	12 hours	"	Died on 4th day	"	Septic Peritonitis
14	May 28	Prof. D. Tibone, Turin, Italy	"	27	Primipara	"	C.V. 2 $\frac{3}{8}$ in	3ft. 8 $\frac{1}{2}$ in.	"	"	Died in 40 hours	"	"
15	June 14	Prof. C. C. Th. Litzmann, Kiel, Germany	"	29	1 (craniotomy)	Generally contracted pelvis	C.V. 3 $\frac{3}{8}$ in	4ft. 6 $\frac{1}{2}$ in.	3 days	Febrile. Occlusion of external os	Died on 6th day	"	" pus found in shut cervix
16	July 9	Prof. A. Breisky, Prague, Austria	"	32	Primipara	Rickets	C.V. 2 $\frac{3}{8}$ in	4ft. 8 in.	As soon as waters broke	Favourable	Recovery	"	—
17	Aug. 3	Prof. A. Wasseige, Liège, Belgium	"	21	"	"	C.V. 1 in	3ft. 3 $\frac{3}{8}$ in.	A few hours. Waters not broken	Not very favourable	Died in 46 hours	"	Septic peritonitis
18	Aug. 23	Prof. C. Perolio, Brescia, Italy	"	25	"	"	C.V. 2 $\frac{3}{8}$ in	3ft. 11 in.	15 hours	Favourable	Recovery	"	—
19	Sept. 16	Dr. H. Riedinger, Brünn, Austria	"	33	"	(pseudo-osteo-malacia) Rickets	C.V. 2 $\frac{3}{8}$ in	4ft. 7 $\frac{1}{2}$ in.	14 hours	"	"	"	—
20	Oct. 7	Dr. H. Fehling, Stuttgart, Germany	"	30	"	"	C.V. 1 $\frac{3}{8}$ in	4ft. 4 in.	15 hours	"	Died on 5th day	"	Septicæmia
21	Oct. 19	Prof. D. Chiara, Milan, Italy	"	43	6	(kyphoseo-liosis) Malacosteon	Could not be reached	3ft. 4 $\frac{1}{2}$ in	24 hours	"	"	"	—
22	Dec. 13	Prof. Gustav Braun, Vienna, Austria	"	30	Primipara	Rickets	C.V. 2 $\frac{3}{8}$ in	3ft. 10 in.	"	"	Died on 3rd day	"	Septic peritonitis
23	Dec. 30	Dr. G. Previtali, Bergamo, Italy	"	—	"	"	—	—	One day	Prostrate from fear	Died in 30 hours	Stillborn	Shock
24	1879 Jan. 17	Prof. D. Tibone, Turin, Italy	"	30	"	"	C.V. 2 in	3ft. 8 in.	Membranes unruptured 6 hours	Favourable	Recovery	Living	—
25	Feb. 2	Dr. A. Fochier, Lyons, France	"	33	"	Malacosteon	C.V. 1 $\frac{1}{2}$ in	4ft. 5 in.	"	Not very favourable	"	"	—
26	Feb. 11	Dr. P. Coggi, Cremona, Italy	"	30	"	Rickets	C.V. 2 in	4ft. 2 $\frac{3}{8}$ in.	A few hours	Favourable	Died on 8th day	"	Septic peritonitis
27	Feb. 24	Prof. S. Tarnier, Neuilly, France	"	33	"	Fibrous tumour	Normal	Average	7 days	Very unfavourable	Died on 3rd day	Stillborn	Septicæmia
28	Mar. 1	Prof. D. Tibone, Turin, Italy	"	38	"	Rickets	C.V. 1 $\frac{1}{2}$ in	4ft. 4 in.	Not commenced	Favourable	Died on 4th day	Living	Septic peritonitis

TABLE I.—*True Porro's Operations.*

Treatment of pedicle.	Dressing, ordinary or Listerian.	Duration of operation.	Special notes.	References
Kept out with Cintrat's constrictor	Ordinary; drainage through Douglas' pouch and abdominal wound	43 mins	Uterus opened <i>in situ</i> ; constrictor removed on fifth day	Annali Universali di Medicina, Milano, 1876, vol. 237.
Pedicle tied in two parts by metallic suture, and fixed in lower part of abdominal wound	" "	55 mins	Operation performed at Borgo S. Domino, 33 miles from Parma; uterus opened <i>in situ</i>	Not published. Information from operator, through Dr. Peruzzi.
Double metallic ligature through pedicle, over which éraseur chain, and transfixed by three pins	Listerian dressing; no spray	45 mins	On third day passed a drainage-tube through Douglas' pouch, and much turbid fluid escaped; uterus opened <i>in situ</i>	Centralblatt für Gynäkol., 1879, No. 11. Information direct from operator.
Kept out with Cintrat's constrictor	Ordinary; drainage through Douglas' pouch and abdominal wound	—	Brought to hospital almost moribund; uterus opened <i>in situ</i>	Pamphlet of Dr. Carlo Perolio, Brescia, 1879. Communication direct from operator.
Kept out by ligature and éraseur chain	Listerian, with spray; drainage through Douglas' pouch and abdominal wound	1 hour	24 days under preparation in hospital; uterus opened <i>in situ</i>	Wiener Med. Wochenschrift, 1878. Communication direct from Dr. Lumpe, Assistant.
" "	" "	—	Profuse bleeding during operation; placenta detached before uterus was drawn out and éraseur applied	Wiener Med. Wochenschrift, 1878; Centralblatt für Gynäkol., 1878, No. 2, p. 226. Communication direct from Dr. Lumpe, Assistant.
Kept out, stitched in lower part of abdominal wound, and éraseur chain left on	Listerian with spray	—	Uterus opened <i>in situ</i>	Lo Sperimentale, Florence, 1879, Welponer; Wiener Med. Wochenschrift, 1878, No. 23, Pawlik.
Kept out with Cintrat's constrictor	Listerian, with spray; drainage through Douglas' pouch and abdominal wound	45 mins	Pedicle torn loose by vomiting; constrictor left on; uterus opened <i>in situ</i>	Annali Universali di Medicina, Milano, 1878. Communication direct from operator.
Kept out with Maisonneuve's constrictor	Listerian, drainage through Douglas' pouch	—	Müller's modification, drainage-tube removed on fifth day	"Der Moderne Kaiserschnitt," von P. Müller. Berlin, Hirschwald, 1882.
Kept out with Cintrat's constrictor, and two long pins surrounded by elastic ligature	Listerian, without spray	40 mins	Operation performed not for dystocia, but <i>in extremis</i> , towards the end of pregnancy, induction of labour being unsuccessful	Annali Universali di Medicina, Milano, 1878, vol. 243. Giornale Veneto delle Scienze Mediche, Feb., 1879.
Kept out by éraseur chain, and long pin	Listerian with spray; drainage through Douglas' pouch	1 hour	Éraseur tightened 9th day, and removed a few days later; uterus opened <i>in situ</i>	Ann. Soc. Med. Chirurg. de Liège, 1879 xviii; Bull. de l'Acad. Royale de Médecine de Belgique, t. xii, 3me série, No. 5. Communicated direct from operator
Kept out by éraseur chain, Well's clamp applied on 2nd day	Listerian, with spray	—	Müller's modification attempted but relinquished	Lo Sperimentale, Florence, 1879, Welponer; Wiener Med. Wochenschrift, 1879, 2 and 3.
Kept out with double metallic ligature and long pin	Listerian with spray; drainage through Douglas' pouch and abdominal wound	42 mins	Müller's modification; metallic ligature applied with Cintrat's constrictor, which was then removed	Annali Universali di Medicina, Milano, 1878. Communication direct from operator.
Kept out with Cintrat's constrictor, and two long pins	Listerian, with spray; no drainage	50 mins	Müller's modification; womb got out with great difficulty, and bruising, after the membranes were punctured <i>per vaginam</i>	Annali di Ostetricia, etc., Milano, 1879, p. 129. Communication direct from operator.
Ligated and kept out	" "	2 hours	Müller's modification, elastic bandage	Centralblatt für Gynäkol., 1879, iii, pp. 1—4.
Kept out by an acupuncture needle between two Cintrat's wire sutures	Listerian; drainage through abdominal incision	1½ hours	Müller's modification	Archiv für Gynäkol., xiv, Leipzig, 1879, 102—120. Communicated direct from operator.
Kept out with Cintrat's constrictor	Listerian with spray; drainage through Douglas' pouch	75 mins	Severe hemorrhage during operation caused by chain of éraseur cutting through pedicle. At necropsy blood clots found in peritoneum; Müller's modification tried; but relinquished	Bull. de l'Académie Royale de Méd. de Belgique, t. 12, 3me série, No. 8. Communicated direct from operator.
Kept out with Cintrat's constrictor and long pin	Ordinary; drainage through Douglas' pouch and abdominal wound	38 mins	Uterus opened <i>in situ</i> ; constrictor left on, fastened to right thigh; removed on twelfth day	Pamphlet of Dr. Carlo Perolio. Brescia, 1879, tip., F. Appollonis. Communication direct from operator.
Kept out. Stitched to lower angle of wound and chain of Péan and Billoth's éraseur left on	Listerian with spray; drainage-tube through abdominal wound	2 hours	Uterus opened <i>in situ</i> ; abdomen opened 5 days after operation on account of septic symptoms, and drainage-tubes inserted	Wiener Med. Wochenschrift, 1879, 20—21. Communicated direct from operator.
Kept out by Spencer Wells' clamp	Listerian with spray	1½ hours	Müller's modification; clamp was substituted for Cintrat's sereno-cord, the wire having cut through the pedicle	Centralblatt für Gynäkol., 1878. Information direct from operator.
Kept out with éraseur of Chassaignac, and fixed in lower angle of abdominal wound	" "	30 mins	Müller's modification tried, but relinquished	Annali Universali di Medicina, Milano, 1878, vol. 243. Communication direct from operator.
Kept out. Éraseur chain left on	Drainage-tube through abdominal wound	—	Müller's modification	Wiener Med. Wochenschrift, 1879, 12, 13, 15, 16. Communication from Dr. Breus.
Kept out with Cintrat's constrictor	Listerian; drainage through Douglas' pouch and abdominal wound	—	Uterus opened <i>in situ</i>	Not published. Communication direct from operator.
" "	Listerian, with spray	35 mins	"	Annali di Ostet. Gin. e Ped. Milano, 1879, p. 148. Communication direct from operator.
Fixed in lower angle of wound with double metallic ligature	Listerian, with spray; no drainage	25 mins	"	Archives de Tocologie, Paris, Nov., 1879, p. 675.
Kept out by Cintrat's sereno-cord and long pin	" "	50 mins	Müller's modification	Communication direct from operator.
" "	" "	—	Müller's modification; fetus putrid; gas in utero	Annales de Gynécologie, August, 1879, p. 81. Communication from Dr. Auvard, [Assistant.
Kept out with double metallic ligature through centre of pedicle tightened by Cintrat's constrictor, also long pin	" "	35 mins	Uterus opened <i>in situ</i> ; intestines protruded during operation	Annales de Gynécologie, Dec., 1879; Giornale Internazionale, Napoli, 1879. Communication direct from operator.

TABLE I.—*True Porro's Operations (continued).*

No.	Date.	Operator and Locality.	Hospital or Private house.	Age.	Number of previous labours.	Cause of difficulty.	Available pelvic space.	Height of Woman.	Time in labour before operation.	Condition of woman at time of operation.	Result to woman.	Result to child.	Cause of death in woman.
29	1879 Mar. 20	Dr. G. Peyretti, Turin, Italy	Hos.	32	Primipara	Rickets	C.V. 2½ in	3ft. 7in.	24 hours	Favourable	Died on 10th day	Living	Tetanus
30	Mar. 30	Prof. S. Tarnier, Paris, France	"	36	"	"	C.V. 2½ in	4 feet	5 days	Unfavourable	Recovery	Stillborn	—
31	April 1	Prof. Carl von Braun-Fernwald, Vienna, Austria	"	25	"	"	C.V. 2½ in	5ft. 4in.	24 hours	Favourable	"	Living	—
32	May 3	Dr. G. Previtali, Bergamo, Italy	"	—	"	"	—	—	One day	"	Died in 20 hours	"	Shock
33	May 16	Prof. G. Berruti, Turin, Italy	P. ho.	31	"	"	C.V. 1½ in	4ft. 4in.	12 hours	"	Recovery	"	—
34	May 25	Prof. Carl von Braun-Fernwald, Vienna, Austria	Hos.	23	"	"	C.V. 2in	4 feet	10 hours	"	Died on 5th day	"	Peritonitis
35	June 19	Prof. L. Mangiagalli, Milan, Italy	"	24	"	"	C.V. 2½ in	4ft. 8½ in.	1½ days	"	Recovery	"	—
36	June 20	Prof. Carl von Braun-Fernwald, Vienna, Austria	"	23	"	"	C.V. 2in	4ft. 6½ in.	6 hours	"	"	"	—
37	Aug. 28	Prof. D. Chiara, Milan, Italy	"	25	1 (after craniotomy)	"	C.V. 2½ in	4ft. 4in.	Not commenced	"	"	"	—
38	Nov. 19	Dr. J. Lucas-Championnière, Paris, France	"	26	Primipara	"	C.V. 2½ in	4ft. 1in.	About 9 hrs	"	"	"	—
39	Dec. 6	"	"	28	"	"	C.V. 1½ in	4ft. 2in.	24 hours	"	Died in 32 hours	"	Shock; no peritonitis or septicæmia
40	Dec. 30	"	"	23	"	"	C.V. 1½ in	4ft. 2in.	Upwards of 30 hours	Unfavourable	Recovery	"	—
41	1880 Jan. 2	Dr. Heusner, Barmen, Germany	"	22	"	"	C.V. 2in	4ft. 5½ in.	60 hours	Favourable	Died on 3rd day	Stillborn	Septicæmia
42	Jan. 9	Dr. G. Previtali, Bergamo, Italy	"	—	"	"	—	—	One day	"	Died in 48 hours	Living	Shock
43	Jan. 11	Prof. G. Valtorta, Venice, Italy	"	26	3 (2 after embryotomy, 1 induction of labour and forceps)	"	C.V. 2½ in	4ft. 8in.	37 hours	Exhausted by previous attempts to deliver	Died in 35½ hours	Stillborn	"
44	Jan. 17	Dr. J. Lucas-Championnière, Paris, France	"	43	Primipara	"	C.V. 2in	3ft. 8in.	2 days	Unfavourable	Died in 30 hours	Living (died 1 day after)	Shock; no signs of peritonitis or septicæmia
45	Feb. 16	Prof. Eugène Hubert, Louvain, Belgium	"	27	"	"	C.V. 2½ in	4ft. 1in.	14 hours	Favourable	Died in 32 hours	Living	Secondary hæmorrhage; incipient peritonitis
46	Feb. 17	Prof. G. Chiarleoni, Milan, Italy	P. ho.	29	3 (2 induced) 1 after cephalotripsy	"	C.V. 2½ in	4ft. 4in.	Not commenced	"	Died on 3rd day	"	Secondary hæmorrhage
47	Feb. 25	Prof. L. Mangiagalli, Milan, Italy	Hos.	20	Primipara	"	C.V. 1½ in	3ft. 4½ in.	"	"	Recovery	"	—
48	March 7	Prof. A. Cuzzi, Cremona, Italy	"	35	"	Rickets: funnel-shaped pelvis	Bis-ischiatric 2in	3ft. 4in.	About 6 hrs	Unfavourable	Died on 4th day	"	Septic peritonitis
49	March 7	Prof. Gustav Brauu, Vienna, Austria	"	30	Primipara	Dwarf pelvis	C.V. 2in	3ft. 1in.	10½ hours	Favourable	Recovery	"	—
50	Mar. 21	Prof. G. Veit, Bonn, Germany	"	36	7 (2 last craniotomy)	Malacosteon	—	—	Just commenced	Fair	Died on 7th day	"	Septic peritonitis
51	April 8	Prof. Isaac E. Taylor, New York, U.S. America	P. ho.	27	1 (cephalotripsy)	Rickets	C.V. 2½ in, 1½ in bis-ischiatric	4ft. 4in.	12 hours	Favourable	Died on 26th day	"	Embolism, following phlegmasia dolens
52	April 15	Dr. Heusner, Barmen, Germany	Hos.	33	4	Malacosteon	C.V. 2½ in R. sacro-cot., 1½ in	Tall	12 hrs. after water broke	Somewhat exhausted	Died on 4th day	Stillborn	Septic peritonitis
53	April 23	"	"	29	Primipara	Rickets	C.V. 2in	Short	About 12 hrs	Very unfavorable from prolonged attempts at delivery & loss of blood; very anæmic	Died on 2nd day	"	Loss of blood & carbolic acid poisoning; no peritonitis
54	May 3	Prof. T. Halbertsma, Utrecht, Holland	"	20	"	Rickets: partial rupture of uterus	C.V. 3in	—	30 hours	Unfavourable	Recovery	"	—
55	May 28	Prof. Carl von Braun-Fernwald, Vienna, Austria	"	27	1	Rickets	C.V. 2½ in	—	—	Favourable	"	Living	—

TABLE I.—True Porro's Operations (continued).

Treatment of pedicle.	Dressing, ordinary or Listerian.	Duration of operation.	Special notes.	References.
Kept out with Cintrat's constrictor, and stitched to lower angle of abdominal wound	Listerian, with spray; no drainage	1½ hours	Uterus opened <i>in situ</i> ; tetanus followed "miliary fever;" constrictor, 8 inches long, fixed to right thigh, removed ninth day	Taglio Cesareo, etc., Torino, 1879, Peyrctti. Communication direct from operator
Kept out by long pin between two metallic ligatures applied with Cintrat's constrictor	Listerian, with spray	—	Uterus opened <i>in situ</i> ; foetus putrid	Annales de Gynécologie, August, 1879; Thèse de Maygrier, Paris, 1880. Communication from Dr. Auvard, Assistant.
Kept out; éraseur-chain left on, and a long pin	Thymol spray; drainage-tube through abdominal wound	—	Müller's modification attempted, but relinquished; drainage-tubes removed on 11th and 15th days; chain came away on 14th day	Wiener Med. Wochenschrift, 1880, Pawlik; LoSperimentale, Florence, 1879, Welpner.
Kept out with Cintrat's constrictor	Listerian; no drainage	—	Uterus opened <i>in situ</i>	Communication direct from operator.
Kept out: Koerber's serre-nœud and double ligature of silk	Listerian, with spray	35 mins	On the 20th day the patient was shown at the Medical Society of Turin	L'Indipendente di Torino, 1879; Giornale Internazionale delle Scienze Mediche, Napoli, 1880. Communication direct from operator.
Kept out by constrictor	Thymol spray; drainage through abdominal wound	—	Éraseur-chain cut the pedicle, and so Vorstädter's constrictor was applied; abdomen reopened on 4th day, and washed out with thymol lotion. Müller's modification attempted, but relinquished	Wiener Med. Wochenschrift, 1880, 10, Pawlik.
Kept out with Cintrat's serre-nœud, and stitched to lower angle of abdominal wound; also long pin, with figure of 8 silk ligature	Listerian, with spray; no drainage	28 mins	Cured on 33rd day; uterus opened <i>in situ</i>	Annali di Ostetricia, etc., Milano, 1879, vol. 1. Communication direct from operator.
Kept out; éraseur chain left on	Thymol spray	—	Müller's modification attempted but relinquished	Wiener Med. Wochenschrift, 1880, 16, 17, Pawlik.
Kept out with chain of Chassaig-nac's éraseur and long pin	Listerian, with spray; no drainage	40 mins	Uterus opened <i>in situ</i> ; cured on 45th day	Annali di Ostetricia, etc., Milano, 1879, vol. 1. Communication direct from operator.
Kept out with Cintrat's serre-nœud and two long pins	"	45 mins	Uterus opened <i>in situ</i>	Académie de Médecine, 9 Mars, 1880; Thèse de Maygrier, 1880. Communication direct from operator.
"	"	20 mins	Uterus opened <i>in situ</i>	"
"	"	1 hour	Uterus opened <i>in situ</i>	"
Kept out by Maisonneuve's constrictor	"	"	Müller's modification; severe hæmorrhage during operation, owing to breaking of copper wire; silver wire had to be substituted	Centralblatt für Gynäkol., 1880, No. 7. Communication direct from operator.
Kept out by Cintrat's constrictor	"	—	Uterus opened <i>in situ</i>	Communication direct from operator.
"	"	1 hour	Uterus opened <i>in situ</i> ; at own home attempted version and embryotomy	Communication direct from operator.
Kept out with Cintrat's serre-nœud and two long pins	"	—	Uterus opened <i>in situ</i> ; violent hysterical attack four hours after operation	Académie de Médecine, 9 Mars, 1880; Société de Chirurgie, Juin, 1882; Thèse de Maygrier, Paris, 1880. Communication direct from operator.
Kept out by two strong silk ligatures, with long pin through pedicle	Imperfect Listerian	30 mins	Silk ligatures applied to pedicle because wire of Maisonneuve's serre-nœud broke. Fifteen hours after operation hæmorrhage from pedicle	Journal des Sciences Médicales de Louvain, June 15th, 1880. Communication direct from operator.
Kept out by Cintrat's constrictor and long pin, and fixed in lower angle of wound	Listerian, with spray; no drainage	40 mins	Uterus opened <i>in situ</i> ; the hæmorrhage took place from a laceration in the left broad ligament made by the constrictor	La Pratica Ostetrica nel servizio di S. Corona in Milano, per il Dott. Chiarloni, Milano, 1882. Communication direct from operator.
"	"	40 mins	Uterus opened <i>in situ</i>	Annali di Ostetricia, etc., Milano, 1880, vol. ii, p. 193. Communication direct from operator.
"	"	—	Uterus opened <i>in situ</i> ; Suffering from albuminuria; pyonephritis found at autopsy	Annali di Ostetricia, etc., Jan, 1883.
Kept out; éraseur-chain left on	Listerian, with spray; no drainage	—	Uterus opened <i>in situ</i>	Wiener Med. Wochenschrift, 1880, 26. Communicated direct from operator.
Ligatured and dropped in	Listerian, with spray	45 mins	Müller's modification	Zeitschrift für Geburtshilfe und Gynäkologie, 1880, Bd. v, s. 261.
Cobbler's suture, and dropped in	"	1 hour	Uterus opened <i>in situ</i>	American Journal of Medical Sciences, July, 1880.
Ligatured and dropped in	Listerian, with spray; no drainage	—	Müller's modification	Not published. Communicated direct by operator.
Ligatured with silver wire and dropped in	"	—	Decapitation already performed outside hospital, and trunk removed	"
Kept out with metallic ligatures and fixed in lower angle of abdominal wound	Listerian, with spray	1½ hours	Uterus slightly ruptured, with laceration of peritonæum, in trying to turn for shoulder presentation; uterus opened <i>in situ</i>	Centralblatt für Gynäkol., No. 3, 1881; Weekblad v. d. Nederl. Tijdschrift voor Geneesk., 1880, No. 36. Communication direct from operator.
Kept out with éraseur-chain	"	40 mins	—	Communicated direct by Dr. Fritzl, assistant.

TABLE I.—*True Porro's Operations (continued).*

No.	Date.	Operator and Locality.	Hospital or private house.	Age.	Number of previous labours.	Cause of Difficulty.	Available pelvic space.	Height of woman.	Time in labour before operation.	Condition of woman at time of operation.	Result to woman.	Result to child.	Cause of death in woman.
56	1880 June 1	Dr. V. Omboni, Cremona, Italy	P.ho.	33	Primipara	Rickets	C.V. 1 $\frac{1}{2}$ in	4 feet	11 hours	Favourable	Died on 7th day	Living	Septic peritonitis
57	June 13	Prof. S. Tarnier, Paris, France	Hos.	20	"	Malacosteon	Very contracted	—	Just commenced	"	Died in 30 hours	"	Shock (no peritonitis)
58	June 24	Dr. D. Peruzzi, Lugo, Italy	"	37	"	Rickets	C.V. 2in	3ft. 4in	12 hours	"	Recovery	"	—
59	July 3	Dr. C. Ramello, Turin, Italy	P. ho.	19	"	"	C.V. less than 1in	3ft. 4 $\frac{1}{2}$ in	9 days	Very unfavourable	"	Stillborn; putrid Living	—
60	July 4	Dr. L. Oppenheimer, Würzburg, Germany	"	44	13 (natural)	Malacosteon	Extremely small	—	10 hours	Favourable	"	"	—
61	July 23	Prof. E. Pasquali, Rome, Italy	Hos.	37	Primipara	Duck-beaked pelvis	C.V. 1 $\frac{1}{2}$ in	3ft. 8in	24 hours	Fair	Died on 6th day	"	Pyæmia
62	July 31	Dr. Zweifel, Erlangen, Germany	"	37	"	Fibroid in neck of uterus	1 $\frac{1}{2}$ in. between tumour and symphysis pubis	Average	Several hours	"	"	"	Septicæmia
63	Sept. 18	Prof. G. Veit, Bonn, Germany	"	22	"	Rickets	C.V. 2 $\frac{1}{2}$ in	—	Not commenced	Favourable	Recovery	"	—
64	Sept. 22	Dr. Elliott Richardson, Philadelphia (U.S.A.)	P. ho.	25	"	Dwarf pelvis	C.V. 1 $\frac{1}{4}$ in	3ft. 10in.	Not commenced (8 $\frac{1}{2}$ months pregnant)	"	"	"	—
65	Sept. 24	Professor Herrgott, Nancy, France	Hos.	29	"	Rickets	C.V. 2 $\frac{1}{2}$ in	4ft. 4in.	24 hours	"	Died on 4th day	"	Peritonitis
66	Oct. 21	Dr. Ficki, Warsaw, Russia	P. ho.	27	"	"	C.V. 2in	Short	3 days	"	Died on 5th day	"	Tetanus; circumscribed purulent peritonitis
67	Oct. 28	Prof. Cataliotti, Palermo, Italy	"	41	"	Interstitial fibroid in posterior wall of uterus	Average	5ft. 3in	A few hours	Unfavourable	Recovery	"	—
68	Dec. 2	Prof. D. Tibone, Turin, Italy	Hos.	38	3	Malacosteon	C.V. 2 $\frac{1}{2}$ in	Short	52 hours	Very unfavourable from long labour and partial rupture of uterus	Died on 3rd day	Stillborn	Peritonitis
69	Dec. 7	Dr. J. De Rull, Barcelona, Spain	"	30	1	Atresia vagina following previous labour	Normal	Average	48 hours	Very unfavourable	Died in 4 hours	"	Shock, and hæmorrhage from wound in pedicle caused by wire of Cintrat's serre-nœud
70	Dec. 7	Prof. A. Hegar, Freiburg, Germany	"	34	Primipara	Rickets	C.V. 2 $\frac{1}{4}$ in	3ft. 8 $\frac{1}{2}$ in	Just commenced	Suffering severely from bronchitis	Died on 9th day	Living	Chronic bronchitis; emphysema; catarrhal pncumonia
71	Dec. 15 1881	Prof. Gustav Braun, Vienna, Austria	"	29	3	Malacosteon	Microchord 1 $\frac{1}{4}$ in	—	A few hours	Favourable	Recovery	"	—
72	Jan. 21	Dr. F. Parona, Novara, Italy	P. ho.	27	Primipara	Rickets	C.V. 2 $\frac{1}{2}$ in	3ft. 4in	Not commenced	"	Died on 8th day	"	Tetanus
73	Jan. 21	Prof. A. Breisky, Prague, Austria	Hos.	28	"	"	C.V. 2 $\frac{1}{2}$ in	4ft. 5in	2 days	"	Recovery	"	—
74	Jan. 21	Dr. Kreuzmann, Erlangen, Germany	"	—	"	"	C.V. 2 $\frac{1}{2}$ in	Very short	"	Fair	Died on 3rd day	Stillborn (prolapse of umbilical cord)	Septic peritonitis
75	Jan. 29	Prof. Carl von Braun Fernwald, Vienna, Austria	"	21	"	"	—	3ft. 8 $\frac{1}{2}$ in	Just commenced	Favourable	Recovery	Living	—
76	Feb. 19	Prof. P. Müller, Berne, Switzerland	"	26	"	"	C.V. 2 $\frac{1}{2}$ in	4ft	30 hours	"	"	"	—
77	Feb. 21	Prof. Alex. Simpson, Edinburgh, Scotland	P. ho.	24	4 (3 craniotomies)	"	C.V. 2 $\frac{1}{2}$ in	4ft. 8in	Not commenced	"	Died on 4th day	"	Peritonitis
78	April 6	Dr. C. Olivieri, Naples, Italy	Hos.	20	Primipara	"	C.V. 2 $\frac{1}{2}$ in	3ft. 4in	6 hours	Fair	Died in 30 hours	"	Shock
79	April 7	Dr. Werth, Kiel, Germany	"	38	2 (both delivered by Cesarean section)	"	C.V. 1 $\frac{1}{2}$ in	4ft. 5in	Not commenced	Anæmic	Recovery	"	—
80	April 21	Dr. L. Prochownick, Hamburg, Germany	P. hosp.	40	Primipara	Fibromyoma of uterus impacted in pelvis	—	Average	About 24 hrs after discharge of liquor amnii	Unfavourable	Died in 60 hours	Living (only breathed a few mins)	Septicæmia
81	May 4	Dr. H. Fehling, Stuttgart, Germany	Hos.	30	3	Malacosteon	sacro-cot. 1 $\frac{1}{2}$ in	4ft. 3in	17 hours	Favourable	Recovery	"	—

TABLE I.—*True Porro's Operations (continued).*

Treatment of pedicle.	Dressing, ordinary or Listerian.	Duration of operation.	Special notes.	References.
Kept out with Cintrat's constrictor and two long pins	Listerian with spray	20 mins	Uterus opened <i>in situ</i>	Communication direct from operator. Not published.
Kept out with Cintrat's serre-neud and long needle above the wire	" "	38 mins	" "	Communicated direct by Dr. Labat, late assistant.
Kept out with Cintrat's serre-neud and two strong pins	Listerian with spray; drainage through Douglas' pouch	45 mins	Cured in 22 days; uterus opened <i>in situ</i>	Raccogliore Medico di Forli, 1880, vol. 14, p. 281. Communication direct from operator.
Kept out with Thomas' clamp in lower angle of wound	Listerian, with spray; no drainage	27 mins	Müller's modification	Annali di Ostetricia, etc., Milano, 1880, vol. ii. Communication direct from operator.
Kept out with Spencer Wells' clamp	Listerian, with spray	30 mins	Müller's modification without elastic ligature; manual compression	Aerztliches Intelligenz-Blatt, München, No. 19, 1882.
Kept out with Cintrat's constrictor and two long pins	" "	—	Uterus opened <i>in situ</i>	Annali di Ostetricia, etc., Milano, 1880, vol. iii. Due Ooforistectomie Cesaree, etc., per il Dott. A. Bompiani, Milano, 1881. Communication direct from Dr. Bompiani.
Dropped in with double silk ligature, after removing Kœberle's serre-neud	" "	—	Müller's modification; impossible to fix pedicle outside	Archiv für Gynäkologie, Band 17, Heft 3.
Ligated and dropped in	" "	1½ hours	Müller's modification	Centralblatt für Gynäkol., 1881, p. 193 (Levis).
Kept out with pins; strong silk ligature between them	" "	1½ hours	Müller's modification; wire éraseur used, but removed after applying silk ligature; pedicle came away 11th day; recovery 17th day	American Journal of Medical Sciences, January, 1881.
Fixed in lower angle of abdominal wound with serre-neud and metallic pin, guarded with caoutchouc	Listerian, with spray; no drainage	30 mins	Müller's modification	Revue Médicale de l'Est, 1881, p. 616. Communication direct from operator.
Kept out with Cintrat's constrictor	Listerian, with spray	45 mins	Did well for 4 days; opisthotonos occurred suddenly on 5th day, and death ensued in a few hours	Operacya ciecia cesarskiego sposobem Porro. Tow. lek. Warszawa, d. 9 Listopada, 1880.
Kept out with wire ligature applied by serre-neud, and catgut ligature; transfixed between with metallic pin	Listerian, with spray; no drainage	1½ hours	Uterus opened <i>in situ</i>	Bolletino dell' Accademia di Medicina di Palermo, 1880. Communication direct from operator.
Kept out with Kaltenbach's needle and elastic ligature	" "	1 hour	" "	Annali di Ostetricia, etc., Milano, 1881. Communication direct from operator.
Kept out with two strong pins and elastic ligature	Listerian, with spray	—	Uterus opened <i>in situ</i> ; wire of Cintrat's serre-neud broke, so elastic ligature applied; vaginal cicatrices incised during labour without avail	Communication direct from operator.
Kept out; elastic ligature	Listerian, no spray	1 hour	Stump remained entirely aseptic; no trace of peritonitis	Communication direct from operator. Not yet published.
Kept out; stitched to lower angle of abdominal wound, and éraseur chain left on	Listerian, with spray; no drainage	—	Uterus opened <i>in situ</i>	Anzeiger der k. k. Gesellschaft der Aerzte in Wien, 3 Feb., 1881. Communication from Dr. Breus, assistant.
Kept out with two Cintrat's wire ligatures and two long pins, and fixed in lower angle of wound	Listerian dressing; no drainage	45 mins	" "	L'Indipendente di Torino, 1881. Communication direct from operator.
Kept out by an acupressure needle between two Cintrat's wire ligatures	Listerian, with thymol spray; no drainage	—	Müller's modification	Centralblatt für Gynäkol., vol. v., 1881, p. 228. Information direct from operator.
Stitched to lower angle of wound; Kœberle's serre-neud and a long pin	Listerian, with spray	2 hours	Glass drainage-tube inserted on day following operation	Archiv für Gynäkologie, Bd. xvii, Heft 3 (Zweifel). Communication direct from operator.
Kept out with éraseur chain and long pins, and stitched to lower angle of wound	Listerian	—	—	Communicated direct by Dr. Pritzl, assistant.
Kept out with Spence Wells' clamp, two long pins, and stitched to lower angle of wound	Listerian, with spray; drainage-tube through abdominal wound	1½ hours	Müller's modification	"Der Moderne Kaiserschnitt," von Dr. P. Müller, Berlin, 1882. Communication direct from operator.
Ligated and dropped in	Listerian, with spray	1 hour 40 mins	Uterus opened <i>in situ</i> . Swabbing out Douglas' pouch displaced ligature from pedicle, and fresh ligature and Paquelin's cautery were applied	BRITISH MEDICAL JOURNAL, June 11, 1881.
Kept out with Chassaignac's éraseur and stitched to lower angle of abdominal wound	Listerian, with spray; no drainage	1½ hours	Uterus opened <i>in situ</i> ; éraseur fixed to thigh	Communicated direct from operator. Not published.
Kept out with double elastic ligature applied by Kaltenbach's needle, and stitched to lower angle of wound with catgut sutures	Listerian	1½ hours	Müller's modification	Archiv für Gynäkologie, Bd. xviii, Heft 2.
Kept out with Péan's constrictor; two long pins, and stitched to lower angle of wound	Listerian (without spray); no drainage, drainage-tube inserted 40 hrs. after operation on account of septic symptoms	1½ hours	A little over seven months advanced in pregnancy. Müller's modification	Deutsche Medicinische Wochenschrift, No. 40, 1882. Communicated direct by operator.
Kept out with Péan-Billroth's éraseur chain, and long needle above; stitched to lower angle of wound	Listerian, with spray	2 hours	Müller's modification. Éraseur came away on 16th day	Archiv für Gynäkol., Bd. xviii. Communicated direct by operator.

TABLE I.—*True Porro's Operations (continued).*

No.	Date.	Operator and Locality.	Hospital or Private House.	Age.	Number of previous labours.	Cause of difficulty.	Available pelvic space.	Height of woman.	Time in labour before operation.	Condition of woman at time of operation.	Result to woman.	Result to child.	Cause of death in woman.
82	1881. May 22	Dr. Ambroise Guichard, Angers, France	Hos.	25	Primipara	Rickets	Bis-ischiatric 1½in	3ft. 4½in	Not commenced	Favourable	Died on 3rd day	Living	Shock (no peritonitis)
83	June 8	Dr. L. Oppenheimer, Würzburg, Germany	P. ho.	32	2	Malacosteon	—	—	14 hours	Unfavourable	Died on 4th day	Stillborn	Peritonitis
84	June 22	Dr. B. Niccolini, Milan, Italy	"	22	Primipara	Rickets	C.V. 2½in	3ft. 4in	Not commenced	Favourable	Recovery	Living	—
85	Aug. 30	Prof. Carl von Braun-Fernwald, Vienna, Austria	Hos.	38	"	"	C.V. 2½in R. microchord 2½in	—	"	"	Died on 5th day	"	Peritonitis
86	Oct. 3	Dr. Heusner, Barmen, Germany	"	36	1	"	C.V. 2½in	Short	32 hours	Very unfavourable, repeated eclamptic fits	Died on 3rd day	Stillborn	Septic peritonitis
87	Oct. 9	Prof. Paolo Negri, Milan, Italy	"	33	4	Malacosteon	Bis-ischiatric 1½in	4ft. 11in	26 hours	Favourable	Recovery	Living	—
88	Oct. 22	Prof. D. Chiara, Milan, Italy	"	23	Primipara	Rickets	C.V. 2½in	4ft. 6in	One day	"	"	"	—
89	Oct. 22	Prof. G. Calderini, Parma, Italy	P. ho.	27	1 (at 6 months)	"	C.V. 2½in	Short	3 days	Deplorable	Died	Stillborn	Peritonitis
90	Dec. 11	Dr. W. C. Grigg, London, England	Hos.	34	Primipara	"	C.V. 1½in	3ft 6in	32 hrs. (liq. amnii not discharged)	Favourable	Died in 24 hours	Living	Shock and incipient peritonitis
91	Dec. 22	Prof. Herrgott, Nancy, France	"	34	"	"	C.V. 1in	3ft 7in	5 days	Deplorable	Died next day	Stillborn	Septic peritonitis
92	Dec. 31	Dr. Ernst Braun, Vienna, Austria	"	35	8 (1 craniotomy)	Malacosteon	C.V. 3½in. sacro-cot., 1½in	4ft 8in	8½ hours	Fair	Died 6th day	Living	Peritonitis
93	1882 Jan. 3	Prof. O. Morisani, Naples, Italy	"	38	Primipara	Rickets	C.V. 2½in	4 feet	6 hours	Favourable	Died in 24 hours	"	Septic peritonitis
94	Jan. 8	Prof. A. Briesky, Prague, Austria	"	30	"	"	C.V. 2½in	—	Not commenced	"	Recovery	"	—
95	Mar. 7	Prof. Josef Späth, Vienna, Austria	"	21	"	Roberts' pelvis	C.V. 3½in. bis-ischiatric, 1in	—	Waters broke previous day	"	"	"	—
96	Mar. 10	Dr. G. Dozzi, Mottadi Livenza, Italy	"	28	"	Rickets	C.V. 3in bis-ischiatric 2½in	3 feet	24 hours	Very unfavourable	Died in 24 hours	Living (only breathed for a few minutes)	Shock
97	Mar. 23	Dr. H. Fehling, Stuttgart, Germany	"	39	9	Malacosteon	Sacro-cot. 1½in	4ft 2in	16 hours	Favourable	Recovery	Living	—
98	April	Prof. Gustav Braun, Vienna, Austria	"	31	Primipara	Dwarf pelvis	—	—	Not commenced	Unfavourable	Died following day	Living	Anæmia
99	May 5	Prof. Gustav Braun, Vienna, Austria	"	40	9	Malacosteon	Microchord 2in	—	A few hours after waters broke	"	Died on 4th day	"	Peritonitis
100	May 10	Dr. Paul Grossmann, Omaha, U. S. A.	P. ho.	23	Primipara	Rickets	C.V. 2in	4ft 1in	66 hours	Exhausted from long labour	Died in 14 hours	Stillborn	Shock and exhaustion
101	May 24	Prof. A. Breisky, Prague, Austria	Hos.	28	"	"	C.V. 2½in	—	Not commenced	Favourable	Recovery	Living	—
102	May 30	Dr. Giuseppe Carrara, Brescia, Italy	L. Asy	33	Multipara	In extremis	Normal	Average	"	Hopeless	Died in 2 hours	Living (died in a few days)	Shock and exhaustion
103	June 14	Prof. v. Saexinger, Tübingen, Germany	Hos.	22	Primipara	Rickets	C.V. 2in	4ft 4in	7 hours	Favourable	Died in 30 hours	Living	Peritonitis
104	July 11	Dr. P. Cenci, Borgo, S. Donnino, Italy	"	26	"	"	C.V. 2½in	3ft 5in	36 hours; 18 hours after waters broke	"	Recovery	"	—
105	Sept. 2	Dr. Leopold Dejace, Liège, Belgium	"	25	1	Atresia of vagina following previous labour	Normal	Average	Just commenced	"	"	"	—
106	Sept. 23	Dr. I. Tansini, Lodi, Italy	"	37	2	Malacosteon	Bis-ischiatric 1½in	3ft 5½in	days	"	"	"	—
107	Sept. 26	Prof. von Weber, Prague, Austria	"	23	Primipara	Rickets (pseudo malacosteon)	C.V. 3in	4ft 1in	4 hours	"	Died 3rd day	Living (twins)	Peritonitis
108	Sept. 28	Dr. Pritzl, Vienna, Austria	"	39	2	Carcinoma of cervix	Normal	Average	3 hours	Unfavourable	Died 7th day	Living (lived ½ hour)	"
109	Oct. 17	Prof. Carl von Braun-Fernwald, Vienna, Austria	"	36	5 (last craniotomy)	Malacosteon	C.V. 3in	4 feet	"	Favourable	Died 5th day	Living	Diffuse peritonitis

TABLE I.—*True Porro's Operations (continued).*

Treatment of pedicle	Dressing, ordinary or Listerian.	Duration of operation.	Special notes,	References.
Kept out; fastened in lower angle of abdominal incision; Cintrat's serre-neud, and two long pins	Listerian, with spray; no drainage	1 hour	On the 2nd day slight hæmorrhage from pedicle led to elastic ligature being applied	Annales de Gynécologie, May, 1882, p. 321. Communication direct from operator.
Kept out with Spencer Wells' clamp	Listerian, with spray	45 mins	Child dead before operation began. Memb. broken. Liq. amnii decomposed. Müller's modification without elastic tube; manual compression	Aerztliches Intelligenz-Blatt, München, No. 19, 1882.
Kept out with Cintrat's serre-neud, and long pin	" "	40 mins	Uterus opened <i>in situ</i> . Cured in a month	Annali Universali di Medicina, Milano, 1881, vol. 257.
Kept out with écraseur chain and long pins	" "	—	Uterus opened <i>in situ</i> . At necropsy two small pieces of sponge found in peritoneal cavity	Communicated by Dr. Welponer to Prof. Mangiagalli.
Kept out with two pins; stitched in lower angle of wound	Listerian, with spray; drainage through abdominal wound and vagina	—	Perforation already performed, but extraction impossible	Communication direct from operator. Not published.
Kept out with Cintrat's constrictor, and long pin	Listerian, with spray; no drainage	50 mins	Uterus opened <i>in situ</i> . Cured in 18 days	Due Nuovi Casi di Taglio Cesareo, etc., per Dr. P. Negri, Milano, 1881. Information direct from operator.
Kept out with metallic ligatures applied with Cintrat's constrictor, long pin, and stitched to lower angle of abdominal wound. Constrictor itself removed	" "	50 mins	Uterus opened <i>in situ</i> . Cured in 20 days	" "
Kept out with "gum-string" ligature and Kaltenbach's needle	Listerian; no spray; no drainage	35 mins	Adhesions of omentum to uterus. Perforation previously performed, but extraction impossible. Uterus opened <i>in situ</i>	L'Osservatore, Gazzetta delle Cliniche di Torino, 1882. Communication direct from operator.
Kept out with Koeberle's serre-neud and two long pins	Imperfect Listerian, with spray; no drainage	1 hour	—	New York Medical Record, April 8, 1882. Information direct from operator.
Fixed in lower angle of abdominal wound with serre-neud, and metallic pin guarded with caoutchouc	Listerian, with spray	15 mins	Travelled by rail from Remiremont to Nancy (63 miles) after five days in labour, fætus being putrid, and peritonitis commenced	Communicated direct by operator.
Kept out; Chassaignac's écraseur chain left on	No spray; iodoform dressing	—	Müller's modification	Centralblatt für Gynäkol., 1882, No. 5.
Kept out with double silk ligature, and long pin	Listerian; no spray; no drainage	50 mins	Uterus opened <i>in situ</i>	Intorno a quattro laparotomie, relazione dell' Dott. v. Lauro. Communicated direct by operator.
Kept out by an acupressure needle between two Cintrat's wire ligatures	Listerian, with thymol spray; no drainage	—	Müller's modification	Prager Med. Wochenschrift, vol. 7, 1882, p. 49. Communicated direct by operator.
Kept out with Billroth's écraseur chain	Listerian, with spray until abdomen was opened	1 hour	Müller's modification	Archiv für Gynäkologie, Bd. xx, Heft 1. Communication from Dr. Lumpe, assistant.
Kept out with silk ligature and long pin, and fixed in lower angle of wound	Listerian, with spray; no drainage	20 mins	Patient was "leprous;" prolapse of the umbilical cord before operation. Uterus opened <i>in situ</i>	Gazzetta Medica Italiana Prov. Venete, 1882, No. 22. Communicated direct by operator.
Kept out by Billroth's écraseur chain, and long needle above it	" "	1½ hours	Müller's modification; écraseur came away on 10th day	Archiv für Gynäkologie, Bd. xx, Heft 3. Communicated direct by operator.
Ligated and dropped in	" "	—	Uterus opened <i>in situ</i>	Communicated direct by operator. Fürst, Klinische Mittheilungen über Geburt und Wochenbett.
" "	" "	30 mins	" "	" "
Pedicle and broad ligaments ligatured and dropped in	Carbolised oil dressing; no spray; drainage tube through pedicle into vagina	1½ hours	Version and craniotomy had been attempted before operation was resorted to; uterus opened <i>in situ</i>	Information from Dr. R. M. Stone, of Omaha, through Dr. Harris.
Kept out by acupressure needle between two Cintrat's wire ligatures	Listerian, with thymol spray; no drainage	—	Müller's modification	Prager Med. Wochenschrift, 1882, vii, p. 277. Communicated direct by operator.
Kept out with écraseur chain, and fixed in lower angle of wound	Listerian, with spray; no drainage	30 mins	Operation performed on a woman dying from typhus pellagrica, with the hope of saving the child. Uterus opened <i>in situ</i>	Not yet published. Communicated direct by operator.
" "	" "	75 mins	Müller's modification	Communicated direct by Dr. Kommerell, assistant to Prof. v. Sæxinger.
Kept out with two silk and two wire ligatures, and long pin	" "	60 mins	Uterus opened <i>in situ</i>	L'Indipendente di Torino, Nov. 5, 1882, p. 733.
Kept out with Cintrat's serre-neud and two long pins, and stitched to lower angle of wound	" "	1½ hours	Müller's modification	Archives de Tocologie, April, 1883, p. 240; Bulletin de l'Acad. de Médecine de Belgique, 3 ^{ser.} , t. xvi, No. 11. Communication direct from operator.
Kept out with Péan's serre-neud, and stitched with silk to lower angle of wound	" "	Short	Uterus opened <i>in situ</i> ; cured in 23 days	Gazzetta Medica Italiana Lombarda, Milano, 1882, tom. 4. Communication direct from operator.
Kept out. Fixed in lower angle of abdominal wound, with wire ligature round it	Listerian	—	Müller's modification	Allgemeine Wiener Medizinische Zeitung, Jan. 9 and 16, 1883.
Kept out with India-rubber tube, écraseur chain, and two long pins	Listerian; no spray during operation; no drainage	—	" "	Not published. Communicated direct by operator.
Dropped in on account of thinness of pedicle	" "	1½ hours	" "	Not published. Communicated by Dr. Pritzl, assistant.

TABLE I.—*True Porro's Operation (continued).*

No.	Date.	Operator and Locality.	Hospital or Private house.	Age.	Number of previous labours.	Cause of Difficulty.	Available pelvic space.	Height of Woman.	Time in labour before operation.	Condition of woman at time of operation.	Result to woman.	Result to child.	Cause of death in woman.
110	1882 Nov. 23	Dr. Fochier, Lyons, France	Hosp.	42	13	Fibroid in neck of uterus	$\frac{1}{2}$ in. between tmr & symphs.	Average	3 days	Unfavourable	Recovery	Stillborn	—
111	Nov. 24	Prof. Dohrn, Marburg, Germany	"	38	Primipara	Rickets (pseudo-malacosteon)	C.V. $2\frac{1}{2}$ in	3ft 10in	10 hours	Favourable	Died in 90 hours	Living	Septicæmia
112	Nov. 27	Dr. Clement Godson, London, England	P. ho.	24	"	Deformed pelvis from being crushed in childhood	C.V. $1\frac{1}{2}$ in	4ft 4in	Not commenced (about 12 days before term)	"	Recovery	"	—
113	Dec. 2	Prof. R. Novi, Naples, Italy	Hosp.	24	"	Rickets	C.V. 2in	3ft 6in	Only just commenced	Not Favourable	"	"	—
114	Dec. 7	Prof. Porro, Milan, Italy	"	37	1 (craniotomy)	"	C.V. $2\frac{1}{2}$ in	5 feet	Membranes had ruptured 2 hours	Unfavourable	Died 3rd day	"	Strangulation of intestine from adhesion of a knuckle to cicatrix of abdominal wound
115	Dec. 8	Dr. Galabin, London, England	"	35	Multipara	Cancer of cervix and pelvic cellular tissue	Normal	Medium	12 hours: labor induced shortly before term	Unfavourable from disease	Died on 4th day	"	Septic peritonitis
116	Dec. 14	Prof. Kehrer, Heidelberg, Germany	P. ho.	42	12	Malacosteon	C.V. 2in sacro-cot., $1\frac{1}{2}$ in	4ft 5in	16 hours; (14 hours after waters broke)	Very unfavourable	Recovery	Stillborn	—
117	Dec. 20	Dr. A. Barsotti, Lucca, Italy	Hosp.	38	7	"	C.V. $2\frac{1}{2}$ in bis-ischiatic $1\frac{1}{2}$ in	Medium	2 hours after waters broke	Unfavourable	Died in 24 hours	Living	Shock
118	1883 Jan. 8	Dr. Heywood Smith, London, England	W. ho.	20	Primipara	Rickets	C.V. $1\frac{1}{2}$ in	Short	48 hours	"	Died in 4 days	Stillborn	Sloughing of vagina
119	Jan. 15	Dr. Kabierski, jun., Breslau, Germany	P. ho.	32	4 (3 craniotomies)	"	C.V. $2\frac{1}{2}$ in	"	A few hours	Favourable	Recovery	Living	—
120	Mar. 24	Prof. A. Martin, Berlin, Austria	Privt. hosp.	24	Primipara	Extreme deformity of skeleton. Severe orthopnea	C.V. $2\frac{1}{2}$ in	3ft 10in	Not commenced	Very unfavourable	"	"	—
121	Mar. 28	Prof. Porro, Milan, Italy	Hosp.	29	"	Rickets	C.V. 3in	3ft 9in	"	Favourable	"	"	—
122	April 19	Prof. Gustav Braun, Vienna, Austria	"	38	3	Malacosteon	C.V. $1\frac{1}{2}$ in	—	About 30 hours	Unfavourable	Died on 4th day	"	Septic peritonitis
123	April 25	Prof. Carl von Braun-Fernwald, Vienna, Austria	"	23	Primipara	Rickets	C.V. $2\frac{1}{2}$ in	4ft 4in	Not commenced	Favourable	Recovery	"	—
124	April 26	"	"	32	"	"	"	4ft 1in	"	"	"	Stillborn	—
125	May 1	"	"	39	1	Malacosteon	Obstruction at outlet	—	"	"	"	Living	—
126	May 3	Dr. Celso Bonora, Reggio-Emilia, Italy	P. ho.	43	Primipara	Rickets	C.V. 2in	4 feet	3 days	"	Died on 3rd day	Stillborn	Septic peritonitis
127	May 6	Dr. G. Previtali, Bergamo, Italy	Hosp.	39	10 (natural)	Malacosteon	Bis-ischiatic, $1\frac{1}{2}$ in	4ft 7in	6 hours	"	Recovery	Stillborn (from prolapse of umbilical cord)	Living
128	May 17	Prof. Porro, Milan, Italy	"	35	Primipara	Rickets	C.V. $2\frac{1}{2}$ in	3ft 3in	Not begun	Feeble	"	"	—
129	June 7	Dr. Borsini, Piacenza, Italy	"	35	1	Arthritis deformans	C.V. $2\frac{1}{2}$ in	Medium	About 4 days	Very unfavourable	Died in 35 hours	"	Septic peritonitis
130	June 8	Prof. O. Morisani, Naples, Italy	"	20	Primipara	Rickets	C.V. $2\frac{1}{2}$ in	4ft 1in	Until completion of first stage	Favourable	Died on 4th day	"	"
131	June 17	Dr. Franzolini, Udine, Italy	"	34	"	"	C.V. $2\frac{1}{2}$ in	4 feet	50 hours; 26 hours after waters broke	"	Recovery	"	—
132	June 28	Prof. Porro, Milan, Italy	"	24	"	"	C.V. 2in	4ft 4in	Not begun	"	"	"	—
133	June 29	Dr. Wm. H. Parish, Philadelphia, U.S.A.	"	35	"	Rickets (dwarf pelvis)	C.V. 3in	4ft 3in	Not commenced (8½ months pregnant)	Not favourable (albuminuria)	Died in 38 hours	"	Shock and exhaustion; nephritis
134	Aug. 24	Dr. Clemente Boni, Castel s. Nicolò, Italy	P. ho.	25	1 (symphysectomy & forceps)	Rickets	C.V. $2\frac{1}{2}$ in	Short	20 hours	Unfavourable	Died on 20th day	Stillborn	Cerebralanæmia
135	Aug. 29	Prof. A. Martino, Naples, Italy	Hosp.	29	Primipara	"	C.V. $2\frac{1}{2}$ in	3ft 5in	Not commenced (8½ months pregnant)	Favourable	Recovery	Living	—
136	Sept. 18	Prof. Kehrer, Heidelberg, Germany	"	38	5	Carcinoma cervix uteri	Pelvis normal c. can. less than 1 inch	4ft 6in	46 hours	Very unfavourable	Died in 64 hours	"	Septic peritonitis
137	Sept. 30	Prof. M. Frari, Padua, Italy	"	30	Primipara	Rickets	C.V. $2\frac{1}{2}$ in	4ft 2in	8 hours	Favourable	Died in 7 days	"	"

TABLE 1.—*True Porro's Operations (continued).*

Treatment of pedicle.	Dressing, ordinary or Listerian.	Duration of operation.	Special notes.	References.
Kept out; fixed in lower angle of wound	Listerian, with spray	—	Uterus opened <i>in situ</i> . Six hours' railway-journey after three days' labour	Lyon Médical, 20th May, 1883. Archives de Tocologie, June 1883.
Kept out; stitched to lower angle of wound, with elastic tube around it	Listerian, with spray; no drainage	—	Müller's modification. Coil of intestine came out before uterus was opened, and was with difficulty returned	Centralblatt für Gynäkol., March 17, 1883. Communicated direct by Dr. Rumpé, assistant.
Kept out with Kœberlé's serrenuend and two long pins; also China-silk ligature	Listerian, with spray; no drainage	42 mins	Uterus opened <i>in situ</i> . Twenty days after operation was on sofa, and left the house on December 28th	BRITISH MEDICAL JOURNAL, January 26, 1884.
Kept out with Cintrat's constrictor, and long pin	Listerian; spray suspended while abdomen was open; no drainage	32 mins	Uterus opened <i>in situ</i> . Constrictor removed after application of wire ligature	Giornale Internazionale della Scienze Mediche. Anno v. Communication direct from operator.
" "	Listerian, with spray; no drainage	40 mins	Uterus opened <i>in situ</i> . Top portion of constrictor only left on	Gazzetta Medica Italiana Lombarda, serie 8, tom. 4, 1883. Communicated direct by Dr. Truzzi, assistant.
Kept out with Kœberlé's serrenuend, and two long pins	" "	35 mins	Uterus opened <i>in situ</i>	Communicated direct by operator. Not yet published.
Tied in two portions with thread ligature, and stitched to parietal peritoneum	" "	45 mins	Uterus turned forwards and opened behind the fundus. Patient died 76 days after operation of chronic Bright's disease	Casuiet. Beitr. Z. Porro' tchen. Meth. d. kaiserschl. Diss. Heidelberg, 1883. Communication direct from operator.
Kept out with wire ligature applied by Cintrat's constrictor, and long needle surrounded by carbolised elastic band in shape of 8	" "	45 mins	Uterus opened <i>in situ</i> . No anæsthetic given. Richardson's ether spray instead. Cavity in lung, hypertrophied l. ven. being diagnosed before operation and verified at <i>p.m.</i>	Imparziale di Firenze, March 30, and April 15, 1883. Communication direct from operator.
Kept out with Kœberlé's serrenuend, and two long pins	Eucalyptus air; no drainage	1½ hours	Müller's modification. Cephalotripsy had been performed, and unsuccessful efforts to extract	Communicated direct by operator. Not yet published.
Ligatured and dropped in	Listerian; room sprayed before operation; no drainage	2 hours	Müller's modification. Tediis recovery from pleurisy, attributed by operator to 'catching cold, not septic	Centralblatt für Gynäkol., May 5 and 12, 1883. Communication direct from operator.
Peritoneum stitched over it, and dropped in	Listerian with spray: drainage through Douglas' pouch	36 mins	Previous to operation patient suffering from alarming orthopnea due to endocarditis valvularis and pulmonary catarrh. Uterus opened <i>in situ</i> . Provisional elastic ligature	Centralblatt für Gynäkol., No. 36, 1883. Communication direct from operator.
Kept out by Cintrat's constrictor	Listerian with spray; no drainage	35 mins	Pedicle long time in separating. Uterus opened <i>in situ</i>	Communicated direct by Dr. Truzzi, assistant.
Fixed in lower angle of wound, and éraseur and chain left on	Room sprayed before operation; Listerian dressing: no drainage	—	Uterus opened <i>in situ</i>	Communicated direct by operator.
Kept out with elastic tube, éraseur & chain, and two long pins	" "	1 hour	Müller's modification	Communicated direct by Dr. Pritzi, assistant.
" "	" "	1½ hours	In hospital 5 weeks before operation; Müller's modification; child asphyxiated	" " "
" "	" "	1 hour	Müller's modification	" " "
Kept out with Cintrat's constrictor (latest form) and two long pins	Listerian, with spray: no drainage	43 mins	Uterus opened <i>in situ</i> . Constrictor removed after application of wire ligature	Communicated direct by operator. Not published.
Fastened in lower angle of wound, elastic ligature surrounding it, transfixed by long pins	Listerian; no drainage	45 mins	Uterus opened <i>in situ</i> . Left hospital cured in 40 days	Gazzetta Provinciale di Bergamo, May 19, 1883. Communicated direct by operator.
Kept out with Cintrat's constrictor	Listerian, with spray; no drainage	25 mins	Uterus opened <i>in situ</i>	Not yet published. Communicated direct by Dr. Truzzi, assistant.
Kept out with Cintrat's constrictor and long pin	" "	1 hour	Uterus opened <i>in situ</i> . Peritonitis before operation	Communicated direct by operator.
" "	" "	30 mins	Uterus opened <i>in situ</i>	" "
" "	Room carbolised; no spray while abdomen was open; Listerian dressing	48 mins	Müller's modification; left hospital on 23rd day, nursing baby at breast	Gazzetta Medica di Torino, June 25, July 15, 1883. Communication direct from operator.
" "	Listerian, with spray	55 mins	Uterus opened <i>in situ</i>	Communicated direct by Dr. Truzzi, assistant.
Ligatured and kept out with pins	Room carbolised; no spray during operation; Listerian dressing	1 hour	Müller's modification; patient in hospital 2 months before operation	Communicated direct by Dr. Harris, of Philadelphia.
Ligatured in two portions with strong silk and transfixed by long pin	Listerian, without spray	50 mins	Uterus opened <i>in situ</i> . Shoulder-presentation, and alarming anti-partum hæmorrhage	Communicated direct by Dr. Poruzzi.
Kept out with Cintrat's constrictor and long pin	" with spray	45 mins	Uterus opened <i>in situ</i>	Review of the University of Naples, September, 1883. Communicated direct by Dr. C. Olivieri.
Kept out. Fastened with radiating stitches to edges of abdominal wound	Listerian with spray. Capillary drainage	1½ hours	Uterus opened <i>in situ</i> . Pedicle was so broad and fixed in pelvis that total extirpation by Freund's method was impossible	Communicated direct by operator.
Kept out with Cintrat's constrictor	Listerian with spray	1 hour	Uterus opened <i>in situ</i>	Annali di Ostetricia, etc., Milano, Nos. 9 and 10, 1883. Gazzetta Medica Provincie Venete, Padova, 1883. Communicated direct by operator.

TABLE II.—*Utero-ovarian Amputations during Pregnancy, but before the Fetus*

Date.	Operator and Locality.	Hospital or Private House.	Age.	Number of previous labours.	Cause of difficulty.	Space between tumour and symphysis pubis	Advanced in pregnancy.	Condition of woman at time of operation.	Result to woman	Cause of death in woman.
1880 March 2	Prof. Kaltenbach, Freiburg, Germany	Hosp.	32	Primipara	Fibro-myoma of uterus	4 inches	22 weeks	Strength much reduced by uterine hemorrhage and vomiting	Recovery	—
Mar. 18	Prof. Wasseige, Liège, Belgium	"	35	" (1 abortion)	Cystic fibro-myoma of uterus	—	18 weeks	Favourable	Died on 5th day	Peritonitis
Aug. 16	Prof. D. Hayes Agnew, Philadelphia, U.S.A.	P. ho.	44	Primipara	Fibro-myoma of uterus	Filled the entire pelvis	6 months	Had been 5 days in labour	Died in 64 hours	Vomiting and exhaustion
1882 July 12	Mr. J. Knowsley Thornton, London, England	Hosp.	38	" (1 abortion)	"	—	About 4½ months	Anæmic and emaciated	Recovery	—
July 13	Dr. T. Savage, Rugby, England	P. ho.	25	Primipara	"	—	16 weeks	Favourable	"	—

TABLE III.—*Operations for Removal of Fetus from Abdominal Cavity by*

No.	Date.	Operator and Locality.	Hospital or Private house.	Age.	Previous confinements.	Time of operation after rupture.	Condition of woman.	Result to woman.	Result to child.
1	1878 Nov. 22	Dr. Oscar Prévôt, Moscow, Russia	Hospital	33	4	10 hours	Suffering from incipient peritonitis	Died on 5th day	Dead before operation
2	1880 Feb. 12	Dr. Söxinger, Tübingen, Germany	"	20	Primipara	6 hours	Very exhausted; tympanites uteri	Died 33½ hours after operation	"
3	1881 Mar. 14	Prof. E. Pasquali, Rome, Italy	"	38	3	2 days in labour. Time after rupture not given	Favourable	Died in 24 hours	"
4	April 2	Dr. Federico Fornari, Ascoli Piceno, Italy	Private house	27	Not known	12 hours in labour Time after rupture not given	Very unfavourable	Died in 51 hours	"
5	1882 Mar. 21	Dr. Marehand, Paris, France	Hospital	26	3	1½ hours	Miserably bad	Died same day	"
6	Nov. 2	Dr. Grigg, London	"	25	2	22 hours	In state of collapse	Died in 15 hours	"

APPENDIX.—*Cases omitted from*

No.	Date.	Operator and Locality.	Hospital or Private house	Age.	Number of previous labours.	Cause of Difficulty.	Available pelvic space.	Height of woman.	Time in labour before operation.	Condition of woman at time of operation.	Result to Woman.	Result to child.	Cause of death in woman.
1	1869 July 21	Dr. Horatio R. Storer, Boston, U.S.A.	P. ho.	37	Primipara	Fibro-cystic tumour of the uterus	1½ inch	Ordinary	3 days	Fair	Died in 68 hours	Stillborn (putrid)	Septicæmia
2	1880 Feb. 14	Prof. C. C. Th. Litzmann, Kiel, Germany	Hosp.	39	2	Retention of putrid fetus in horn of bi-corned uterus	Normal	"	Not commenced	"	Died on 3rd day	"	Septic peritonitis
3	June 14	Dr. M. Salin, Stockholm, Sweden	"	22	Primipara	"	"	"	"	"	Recovery	"	—
4	1881 March 7	Dr. Warren, Sydney, New South Wales	"	32	—	Fancied tubo-ovarian pregnancy at eighth month	"	"	"	"	Died on 2nd day	—	Peritonitis

was viable, which have been tabulated elsewhere as true Porro's Operations.

Uterus opened?	Treatment of pedicle.	Dressing, ordinary or Listerian.	Duration of operation.	Weight of tumour.	Special notes.	Reference.
No	Ligatured, and kept out by two long pins	No drainage	75 mins	6½ lbs.	—	Centralblatt für Gynäkol., 17 July, 1880. Communication direct from operator.
No	Ligatured, sutured, and dropped in	Listerian, with spray; no drainage	1½ hours	9 lbs.	Écraseur chain put on provisionally	Bull. de l'Acad. roy. de Méd. de Belgique, t. xiv, 3me série, No. 4. Communication direct from operator.
No	Ligatured, and then secured with a large clamp	Carbolic spray; modified Listerian dressing	2 hours	—	Fœtus putrid	Information from operator through Dr. Harris.
No	Kept out by Kœberlé's serre-nœud, and two long pins	Listerian, with spray	75 mins	—	Rapid growth of tumour rendered diagnosis doubtful as to its being ovarian or fibromyoma	Communicated direct by operator.
No	Clamped, ligatured, and stitched to lower angle of wound	" "	1½ hours	9 lbs. (including uterus and its contents)	—	BRITISH MEDICAL JOURNAL, September 2, 1882.

Laparotomy, followed by Amputation of Ruptured Uterus, with Ovaries.

Cause of death in woman.	Treatment of pedicle.	Dressing, ordinary or Listerian.	Duration of operation.	Reference.
Frequent hæmorrhages from pedicle	Kept out by Péan's serre-nœud beneath which silk ligature	Listerian	45 minutes	American Journal of Obstetrics, October, 1880; Harris. Communication from operator through Dr. Boethelt of St. Petersburg.
Collapse; gangrene of uterus and vagina Septicæmia	Extraperitoneal: Cintrat's serre-nœud Dropped in	Listerian, with thymol spray; no drainage Listerian, no spray: drainage through Douglas' pouch and abdominal wound	70 minutes 1 hour	Communication direct from operator. Annali di Ostetricia di Milano, 1881, vol. iii. Due ooforistorectomie Cesaree, etc., per il Dott. A. Bompiani. Milano, 1881.
Peritonitis	"	"	1½ hours	Raccogliore Medico di Forlì, 1881, vol. xv; L'Indipendente di Torino, April 15, 1881.
"	Stitched in lower angle of wound; Chassaignac's écraseur chain	"	45 minutes	Communication direct from operator.
Exhaustion	Extraperitoneal; Kœberlé's serre-nœud and two long pins	"	2½ hours	" "

Table I, for reasons assigned.

Treatment of pedicle.	Dressing, ordinary or Listerian.	Duration of operation.	Special notes.	References.
Constricted by double metallic ligature through pedicle, and clamp-shield	Ordinary	3 hours	Removal of uterus not premeditated. Resorted to as only means of arresting severe hæmorrhage from cut in uterus. Pelvic portion of tumour left	Journal of Gynecological Society of Boston, October, 1869, p. 223.
Constricted with wire ligature applied with Pean's constrictor and transfixed with two long pins	Listerian with spray; glass drainage-tube	—	Operation performed nearly five months after full term of pregnancy. Uterus duplex. Müller's modification	Retention einer ausgetragenen Frucht in dem unvollkommen entwickelten Horne eines uterus bicornis, von Dr. Werth. Archives für Gynäkologie, Band xvii, Heft ii.
Kept out with catgut ligature	Listerian with spray	—	Operation performed five months after full term of pregnancy. Uterus opened <i>in situ</i> . One cornu of a bifid uterus removed, other part of uterus left	Kaiserschnitt nach Porro uterus duplex. Centralblatt für Gynäkologie No. 9, 1881. Hygiea, Stockholm, No. 3, 1881.
Whole uterus with cervix removed. Upper part of vagina ligatured with silk and dropped in	Listerian with spray; drainage tube through abdominal wall	—	Operation performed, and uterus removed under the belief that it was an extra uterine cyst. Error only discovered afterwards	"An unpremeditated Porro's operation." BRITISH MEDICAL JOURNAL, August 27th 1881.

PORRO'S OPERATION.

SIR,—Will you permit me, as my paper is going to press, to record another operation, of which I have only just received notice?

TABLE I. Case 138. *Date*: October 11th, 1883. *Operator*: Dr. H. Fehling, of Stuttgart. *Patient's age*: 33. *Number of previous labours*: Seven. *Cause of difficulty*: Failure to turn in arm-presentation on account of contracted pelvis from osteomalacia. *Available pelvic space*: C. V., two and a half inches; bischiatric, one and three-quarter inches. *Time in labour before operation*: Fourteen hours. *Result to woman*: Recovery. *Result to child*: Living. *Treatment of pedicle*: Extraperitoneal transfixed by long pin, surrounded by elastic ligature. *Reference*: *Centralblatt für Gynäkologie*, 1884. No. 2.

This makes Dr. Fehling's fourth operation, with three recoveries. The 138 cases are distributed among no fewer than 80 different operators. The results of three of the most successful are as follows.

	Cases.	Recoveries.	Deaths.
Professor Porro (Milan) ...	5	4	1
Professor Breisky (Prague) ...	4	4	0
Dr. H. Fehling (Stuttgart) ...	4	3	1
	13	11	2

Yours faithfully,

CLEMENT GODSON.

NOTE.—In this reprint the figures in the argument have been altered so as to include this and the other operations which have taken place since the paper was read.

Appendix of additional cases

PORRO'S OPERATION: A SUPPLEMENT. BY CLEMENT GODSON, M.D., Consulting Physician to the City of London Lying-in published in the JOURNAL of January 26th, 1884. They contain those cases which were omitted, and those which have since 56.57 per cent., a little higher than that recorded in the original table.

TABLE I.—*True Porro's Operations.*

No.	Date.	Operator and Locality.	Hospital or Private House.	Age.	Number of previous labours.	Cause of difficulty.	Available pelvic space.	Height of Woman.	Time in labour before operation.	Condition of woman at time of operation.	Result to woman.	Result to child.	Cause of death in woman.
138	1880. March	Dr. Laroyenne, Lyons, France	Hos.	30	1	Occlusion of vagina from cicatrices	Admitting only a finger. 1½	—	A few days before term	Favourable	Died on 3rd day	Living	Peritonitis
139	Nov. 1883.	Dr. Fochier, Lyons, France	"	38	Primipara	Rickets	1½	Very short	2 days	"	"	Stillborn	Septic peritonitis
140	Oct. 11	Dr. H. Fehling, Stuttgart, Germany	"	33	7	Failure to turn in arm presentation because of contracted pelvis from osteomalacia	C.V. 2½ in. bischiatic 1¼ in.	—	14 hours	—	Recovery	Living	—
141	1884. Jan. 9	Professor J. Späth, Vienna, Austria	"	38	8	Osteomalacia	—	—	15 hours after waters broke	Very weak & emaciated	"	"	—
142	Jan. 25	Dr. H. Fehling, Stuttgart, Germany	"	32	7	Rickets	1½ in.	4ft. 7in.	12 hours	Favourable	"	"	—
143	Jan. 30	Professor Simpson, Edinburgh, Scotland	"	—	1	Fibroid tumour of lower segment of uterus filling pelvis	1½ in.	Average	18 hours	Very unfavourable	Died	Stillborn	Peritonitis
144	Jan. 30	Professor Tibone, Turin, Italy	"	18	Primipara.	Rickets	1½ in.	4ft. 1in.	38 hours	Favourable	Recovery	Living	—
145	Feb. 14	Dr. Herman, London, England	"	29	"	"	1¼ in.	Short.	48 hours	Unfavourable	Died on 10th day	"	Tubular nephritis, oedema of lungs. Slight local peritonitis
146	April 10	Professor Léon Dumas, Paris, France	"	30	Primipara	Rickets	C.V. 2¼ in.	3ft. 10in.	4 hours	Favourable	Died on 6th day	"	Peritonitis
147	May 3	Dr. Sänger, Leipzig, Germany	"	40	"	Myomata	—	—	Not in labor	Febrile	Died on 3rd day	Putrid	Septicæmia
148	June 28	Professor J. Späth, Vienna, Austria	"	31	5	Osteomalacia, spondylolisthesis	—	—	3 days	Unfavourable	Died on 6th day	Living	Peritonitis
149	Sep. 11	Dr. Fancourt Barnes, London, England	"	28	Primipara	Dermoid cystic tumour in pelvis	1¼ in.	Medium	48 hours, 40 hours after waters broke	"	Died on 5th day	"	Septicæmia
150	Oct. 23	Dr. Vincenzo Lesi, Imola, Italy	"	28	"	Rickets	C.V. 2½ in.	4ft 3in.	10hrs. waters broke 8 hrs.	Favourable	Recovery	"	—
151	Nov. 13	Professor Fritsch, Breslau, Germany	"	27	"	"	C.V. 2½ in.	4 ft. 1 in.	Not commenced	Anæmic	Recovery	Living	—
152	Dec. 2	Dr. M. Handfield-Jones, London, England	P. ho.	36	"	Subperitoneal fibroid impacted in pelvis	About 2in.	About 4ft. 10in.	27 hours	Unfavourable	Died on 3rd day.	Stillborn	Peritonitis

Hospital ; Assistant Physician-Accoucheur to St. Bartholomew's Hospital. The subjoined tables are contributed as an Appendix to those occurred. The true Porro's operations now amount to 152 ; of these there are 66 recoveries and 86 deaths, which gives a mortality of

TABLE I.—*True Porro's Operations (continued).*

Treatment of pedicle.	Dressing ordinary or Listerian.	Duration of operation.	Special Notes.	References.
Fixed in lower angle of wound surrounded by elastic ligature	Listerian	45 mins	—	Discussion of Society of Medical Societies in Lyons.
Kept out. Fixed in lower angle of wound	"	36 mins	Uterus opened <i>in situ</i>	Communication direct from operator.
Extraperitoneal ; transfixed by long pin surrounded by elastic ligature	"	—	—	Centralblatt für Gynäkologie, 1884, No. 2.
Kept out with Billroth's écraseur and two long needles	Listerian. No spray	40 mins	Chain fell from pedicle on 13th day	Archiv. für Gynäkologie, 23 Band, Heft 2, 1884.
Transfixed by long pin surrounded by elastic ligature	Iodoform dressing. No spray	—	—	Communication direct from operator. Not yet published.
Kept out with Lawson Tait's clamp	" "	—	The bulging tumour caused tension on the pedicle and prevented drainage. Removal of tumour impossible. Müller's modification	Edinburgh Medical Journal, July, 1884. Communication from Dr. Barbour.
Transfixed with Kaltenbach's needle and elastic ligature applied through centre of pedicle	Listerian	1 hour	Uterus opened <i>in situ</i> . Woman left hospital well, March 15	Communication direct from operator. Annali di Obstetricia, No. 2 and 3, 1884.
Kept out with Lawson Tait's clamp	Listerian with spray	40 mins	Uterus opened <i>in situ</i>	Not yet published. Communicated direct from operator.
Kept out with Cintrat's constrictor and two long pins	Listerian with spray	1½ hours	Uterus opened <i>in situ</i>	Annales de Gynécologie, October, 1884.
Fixed in lower angle of abdominal wound by Hegar's method	Listerian	—	Patient was 4 weeks over term when operation was undertaken. Uterine walls contained six myomata	Not yet published. Communication direct from operator.
Kept out with écraseur chain	Listerian without spray. No drainage	1 hour	Uterus opened <i>in situ</i>	Information from Dr. Ehrendorfer. Not yet published.
Kept out with Koberlé's serre-nœud and two long pins	Listerian without spray	30 mins	Uterus opened <i>in situ</i> . Placenta removed before serre-nœud was applied	Communication direct from operator.
Ligatured and stitched to abdominal wound, ligature of both broad ligaments below ovaries	Listerian	35 mins	Pedicle did not unite very satisfactorily at first and gave considerable trouble	Communication direct from operator.
Ligatured and dropped in after application of iodoform	"	—	Müller's modification. Patient left Hospital well on 15th day	Centralblatt für Gynäkologie, No. 1, 1885.—Heilbrun.
Fixed in lower angle of wound with Koberlé's serre-nœud and two long pins	Listerian with spray	45mins	Tumour freed from adhesions and removed with uterine. Attempts to raise tumour per vaginam failed. Craniotomy also failed	Not yet published. Information direct from operator.

TABLE II.—*Utero-ovarian Amputations during*

No.	Date.	Operator and Locality.	Hospital or Private House.	Age.	Number of previous labours.	Cause of difficulty.	Space between tumour and symphysis pubis.	Advanced in pregnancy.	Condition of woman at time of operation.	Result to woman.	Cause of death in woman.
6	1877 Jan. 7	Dr. Robert Barnes, London	P. ho.	—	Primipara	Fibro-miomata of uterus	Hardly any	2 months	Greatly prostrated. Suffering from peritonitis	Died in 30 hours	Shock and peritonitis
7	1883 Jan. 13	Professor Schröder, Berlin	Hosp.	40	"	"	"	3 months	Favourable	Recovery	—
8	Sept. 15	Dr. T. Savage, Birmingham	"	22	1	Occlusion of vagina from sloughing after previous labour	—	6 months	"	"	—
9	1884 Jan. 17	Dr. George Fortescue, Sydney New South Wales	"	21	Primipara	Ovarian cystoma	Normal	5 months	"	"	—
10	June 23	Professor Schröder, Berlin	"	34	"	Large fibro-myoma of uterus	Hardly any	2½ months	"	"	—

TABLE III.—*Operations for Removal of Fetus from Abdominal Cavity by*

No.	Date.	Operator and Locality.	Hospital or Private house.	Age.	Previous confinements.	Time of operation after rupture.	Condition of woman.	Result to woman.	Result to child.
7	1883. Dec. 18	Dr. Luigi Violani, Forlì, Italy	Private house	27	3	12 hours	In state of collapse	Died in 48 hours.	Dead before operation.

TABLE IV.—*Cases omitted from*

No.	Date.	Operator and Locality.	Hospital or Private house.	Age.	Number of previous labours.	Cause of Difficulty.	Available pelvic space.	Height of woman.	Time in labour before operation.	Condition of woman at time of operation.	Result to Woman.	Result to Child.	Cause of death in Woman.
	1882. Oct. 2	Dr. M. Sänger, Leipzig, Germany	Hosp.	21	2	Retention of a macerated fetus in the left horn of a bicornered uterus	Normal	Ordinary	Had labour pains for 12 hours 9 weeks before operation	Fair	Recovery	Stillborn macerated	—

Pregnancy, but before the Fetus was viable.

Uterus opened?	Treatment of pedicle.	Dressing, ordinary or Listerian.	Duration of operation.	Weight of tumour.	Special notes.	References.
No	Ligatured with strong whip-cord and dropped in	Ordinary	—	—	Uterus was compressed between two fibroid tumours, the larger locked in the pelvis, the smaller projecting over the symphysis pubis	St. George's Hospital Reports, vol. viii, 1874-76, page 91. Communication from operator.
No	Dropped in		—	—	Uterus with two interstitial and one subperitoneal fibroids removed, being amputated at the internal os uteri	Communication direct from operator, 13th July, 1884.
No	Kept out with clamp		1 hour	—		Birmingham Medical Review, Nov., 1883. Communication direct from operator.
Yes	Kept out with Spencer Wells's clamp	Listerian dressing; no spray. Drainage tube through abdominal wall	1½ hours	—	Uterus was removed because it was wounded during ovariectomy. The uterus was punctured believing it to be a second ovarian cystoma	The Australian Medical Gazette, Sydney, May 15th, 1884.
No	Dropped in		—	—	The tumour, measuring 24 kilomètres, was situated beneath the pregnant uterus, and was removed together with it, the amputation being at the internal os	Communication direct from operator, 13th July, 1884.

Laparotomy, followed by Amputation of Ruptured Uterus, with Ovaries.

Cause of death in woman.	Treatment of pedicle.	Dressing, ordinary or Listerian.	Duration of operation.	Reference.
Septic peritonitis	Extraperitoneal; Cintrat's serre-nœud	Imperfect Listerian	40 minutes	Raccoglitori Medico di Forlì, 1883, vol. xx, p. 654.

Table I, for reasons assigned.

Treatment of pedicle.	Dressing, ordinary or Listerian.	Duration of operation.	Special Notes.	Reference.
Peritoneum stitched over stump with 8 silk sutures; pedicle dropped in constricted with elastic ligature	Listerian, without spray	1½ hours	Operation performed 9 weeks after death of fetus, when separation of a decidua occurred, with symptoms of internal hæmorrhage and peritonitis	Centralblatt für Gynäkologie, 1882. Communication direct from operator

